10/715,556 Page 3

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6

exact/norm bonds :

1-2 1-6 1-12 2-3 3-4 4-5 4-7 5-6 9-10 9-11

exact bonds :

5-9 6-8

isolated ring systems :

containing 1 :

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS 11:CLASS 12:Atom

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 ST

Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 10:36:32 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 45 TO ITERATE

100.0% PROCESSED 45 ITERATIONS

9 ANSWERS

102 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 498 TO 1302

PROJECTED ANSWERS: 9 TO 360

L2 9 SEA SSS SAM L1

=> s l1 sss full

FULL SEARCH INITIATED 10:36:39 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 969 TO ITERATE

100.0% PROCESSED 969 ITERATIONS

Habte 01/29/2007

10/715,556 Page 4

SEARCH TIME: 00.00.01

102 SEA SSS FUL L1 L3

=> file caplus

SINCE FILE COST IN U.S. DOLLARS TOTAL SESSION ENTRY 172.10 172.31

FULL ESTIMATED COST

FILE 'CAPLUS' ENTERED AT 10:36:44 ON 29 JAN 2007 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

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http://www.cas.org/infopolicy.html

=> s 13

27 L3 L4

=> d ibib abs hitstr tot

L4 ANSWER 1 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:1241148 CAPLUS

DOCUMENT NUMBER: 144:6796

Preparation of pyridazinones as glycogen synthase kinase-13 inhibitors for pharmaceutical uses Hoelder, Swen; Mueller, Guenter; Schoenafinger, Karl; will, David William; Matter, Hans; Boseart, Martin Aventis Pharma Deutschland GmbH, Germany PCT Int. Appl., 179 pp.

DOCUMENT TYPE: Patent LANGUAGE: PAMILY ACC. NUM. COUNT: 1 DOCUMENT TYPE: LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

			NO.			KIN	D	DATE			APPL						ATE	
			1110			A1	-	2005	1124									
		W:	AE,	AG,	AL,	AM,	AT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
			CN,	co,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	PI,	GB,	GD,
			GE,	GH,	GM,	HR.	HU.	ID.	IL,	IN,	IS,	JP,	KE,	KG,	KM,	KP,	KR,	KZ,
			LC.	LK.	LR,	LS.	LT.	LU.	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,
			NG.	NI.	NO.	NZ.	OM.	PG.	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,
			SL,	SM,	SY,	TJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,
			ZA,	ZM,	ZW				•									
		RW:	BW.	GH,	GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,
			AZ.	BY,	KG,	KZ.	MD,	RU,	TJ,	TM.	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,
			EE.	ES.	PI.	FR.	GB,	GR.	HU,	IE,	IS,	IT,	LT,	LU,	MC,	NL,	PL,	PT,
			RO.	SE.	SI.	SK.	TR.	BF.	BJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ.	GW,	ML,
			MR,	NE,	SN,	TD,	TG											
1	EΡ	1604	988			A1		2005	1214		EP 2	004 -	1173	4		2	0040	518
		R:	AT,	BE.	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
			IE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR,	BG,	CZ,	EE,	HU,	PL,	SK,

EP 2004-11734

A 20040518

OTHER SOURCE(S):

HR PRIORITY APPLN. INFO.:

MARPAT 144:6796

ANSWER 1 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued) carboxylic hydrazide
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
[prepn. of pyridazinones as glycogen synthase kinase-3ß inhibitors for pharmaceutical uses)
80843-64-5 CAPLUS
4-Pyridazinecarboxylic acid, 2,3-dihydro-3-oxo-6-(4-pyridinyl)-, irazide hydrazide (9CI) (CA INDEX NAME)

REFERENCE COUNT:

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

ANSWER 1 OF 27 CAPLUS COPYRIGHT 2007 ACS On STN (Continued)

AB The present invention relates to pyridazinones (shown as I; variables defined below; e.g. 4-(1H-indol-2-yl)-6-(pyridin-4-yl)-2H-pyridazin-3-one (III) as well as their physiol. acceptable salts, methods for producing these compds. and their use as pharmaceuticals. Compds. I are kinase inhibitors, in particular inhibitors of the kinase GSK 3β (glycogen synthase kinase-iβ). Methods of preparation are claimed and prepns. and/or characterization data for appxx.200 examples of I are included. For example, III was prepared in 6 steps starting with preparation of 6-(pyridin-4-yl)-2H-pyridazin-3-one by cyclization of 4-acetylpyridine with acid monohydrate followed by preparation of intermediates 3-chloro-6-(pyridin-4-yl)pyridazine,
4-iodo-3-methoxy-6-(pyridin-4-yl)pyridazine,
4-iodo-3-methoxy-6-(pyridin-4-yl)pyridazine and
2-(3-methoxy-6-(pyridin-4-yl)pyridazine)
(IA is CR3 or N; B is CR4 or N; D is CR5 or N; E is CR6 or N; where not more than three of A, B, D and E may be N), tetrazolyl and (un)substituted
triazolyl, imidazolyl, pyrrolyl and pyrazolyl (each X is bound to the pyridazinone fragment Via the C atom being in α-position to the
NH-fragment); R1 is halogen or (un)substituted C1-C10-alkyl; R2 is H or C1-C10-alkyl; addnl. details including provisos are given in the claims. ICSO values for inhibition of GSK 3β are tabulated for 16 examples of I, e.g. 0.007 M for 4-(3-(1-methyl-1H-pyrazol-4-yl)-ih-indol-2-yl)-6-(pyridin-4-yl)-2H-pyridazin-3-one.

IT 80843-46-SP, 3-0xo-6-(pyridin-4-yl)-2,3-dihydropyridazine-4-

L4 ANSWER 2 OF 27 CAPLUS COPYRIGHT 2007 ACS ON STN ACCESSION NUMBER: 2005:1235649 CAPLUS DOCUMENT NUMBER: 144:6795
TITLE: Prenavant Pren

144:6795
Preparation of novel pyridazinone derivatives as inhibitors of CDK2
Aventis Pharma Deutschland G.M.B.H., Germany Eur. Pat. Appl., 64 pp.
CODEN: ERXINW
Patent
English

PATENT ASSIGNEE(S): SOURCE:

DOCUMENT TYPE:

English

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PATENT NO. KIND DATE

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	ÉP	1598	348			A1		2005	1123	1	EP 2	004-	1173	5		2	0040	518
		R:	AT.	BE,	CH,	DE.	DK,	ES,	FR.	GB.	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
			IE.	SI.	LT.	LV.	FI.	RO,	MK.	CY.	AL.	TR.	BG.	CZ.	EE.	HU.	PL.	SK.
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			ZA,	ZM,	2W													
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								RU,										
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										1	10 2	005-	EP60	46	,	W 2	0050	517

APPLICATION NO.

DATE

OTHER SOURCE(S): MARPAT 144:6795

ANSWER 2 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

AB The title compds. I (X = II, tetrazolyl, (un)substituted triazolyl, etc.;
A = CR3, N; B = CR4, N; D = CR5, N; E = CR6, N; where not more than three
of A, B, D and E may be N; R1 = halo, (un)substituted alkyl, atr.), etc.; R2 = H, alkyl; R3-R6 = H, halo, CN, etc.; R9 = H, halo, CN, etc.; R9 = H, halo, CN, etc.], useful
as inhibitors of CDK2 for treating cancer, were prepared and formulated.
E.g., a multi-step synthesis of III, starting from 6-Chloro-4-1odo-3methoxypyridazine and 1-(tert-butoxycarbonyllindole-2-boronic acid, was
given. III showed ICSO of 0.033 µM in CDK2/Cyclin E flashplate assay.

10843-46-19 RL: RCT (Reactant): SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation of novel pyridazinones as inhibitors of CDK2 for treating
cancer)
RN 80843-46-5 CAPLUS
(N 4-Pyridazinecarboxylic acid, 2,3-dihydro-3-oxo-6-(4-pyridinyl)-,
hydrazide
(9CI) (CA INDEX NAME)

(9CI) (CA INDEX NAME)

ANSWER 2 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN

REFERENCE COUNT:

THERE ARE 7 CITED REPERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

(Continued)

PORMAT

ACCESSION NUMBER:
DOCUMENT NUMBER:
101TLE:
144:22880
Pyrazolo[3.4-c]pyridazines as Novel and Selective Inhibitors of Cyclin-Dependent Kinases
Author(s):

Author(s):

Brana, Miguel P:, Lopez, Berts; de Pascual-Teresa, Beatriz; Ramos, Ana; Acero, Nuria; Llinares, Francisco, Munoz-Mingarro, Dolores; Lozach, Olivier; Meijer, Leurent
Facultad de Farmacia, Universidad San Pablo CEU, Madrid, Spain
Journal of Medicinal Chemistry (2005), 48 (22), 6843-6854
CODEN: JMCMAR; ISSN: 0022-2623
American Chemical Society
Journal
CHER SOURCE:
CASREACT 144:22880

CASREACT 144:22880

Pyrazolopyridazines I (R, R1 = Ph, 4-PhC6H4, 4-02NC6H4, 4-Me3CC6H4, 4-P3CC6H4, 4-Me0C6H4, 2-PhC6H4, 2-furyl, 2-pyridyl, 4-H2NC6H4, H, Me; R2

H2N, HO, EINHCONH, PhNHCONH, H2NNH, MeCONH; R3 = H, MeCO, PhCH2, HOCHZCH2OCH2, HOCHZCH2OCH2CH2) are prepared as selective inhibitors of cyclin-dependent kinases and as potential anticancer agents; diphenylpyrazolopyridazinamine I (R = R1 = Ph; R2 = H2N; R3 = H) (II) is

potent inhibitor of CDK1/cyclin B and is selective for cyclic-dependent kinases over other kinases such as kdr or lck. The structure of II and ATP bound to CDK2 is determined by computation using a combination of conformational search and automated docking techniques; the stability of the resulting complex is assessed using mol. Aynamics simulations. The binding of II to cyclic-dependent kinases and inhibition of human cancer cell lines is rationalized with the binding mode of II to CDK2. I (R =

R1 = 2-furyl; R2 = H2N; R3 = H) is prepared based on the computational atructure derived for II and ATP bound to CDK2 and is one of the most active CDK1 inhibitors of the pyraxolopyrazines tested.

70120-00-69
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation of substituted pyraxolo[3,4-c]pyridazines, particularly pyraxolo[3,4-c]pyridazinemines, as selective inhibitors of cyclic-dependent kinases and as potential anticancer agents)
4-Pyridazinecarboxamide, 6-(2-furanyl)-2,3-dihydro-3-oxo- (9CI) (CA 2X)

RN 87 CN 4-Pyri INDEX NAME)

Habte

01/29/2007

ANSWER 3 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

REFERENCE COUNT: THERE ARE 42 CITED REFERENCES AVAILABLE FOR

RECORD. ALL CITATIONS AVAILABLE IN THE RE

INVENTOR (S)

L4 ANSMER 4 OF 27
ACCESSION NUMBER:
DOCUMENT NUMBER:
143:306326
TITLE:
Production of 4-benzimidazol-2-yl-pyridazin-3-one derivatives and use thereof in medicaments
Schoensfinger, Karl; Neelder, Swen; Will, David
William; Matter, Hans; Mueller, Guenther; Bossart,
Martin

PATENT ASSIGNEE(S): SOURCE:

William; Matter, Hans; Mueller, Guenther; Box Martin Aventis Pharma Deutschland G.m.b.H., Germany PCT Int. Appl., 126 pp. CODEN: PIXXD2 Patent German 1

DOCUMENT TYPE: LANGUAGE: PAMILY ACC. NUM. CO PATENT INFORMATION

COUNT:

		ENT																
							-									-		• • •
	WO	2005	0852	30-		A1		2005	0915	1	WO 2	005-	EP21	79		2	0050	302
		W:	AE.	AG.	AL.	AM.	AT.	AU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
			CN.	co.	CR.	cυ.	CZ.	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
			GE,	GH.	GM.	HR.	HU.	ID,	IL.	IN,	IS.	JP,	KE,	KĢ,	KP,	KR,	KZ,	LC,
			LK,	LR,	LS.	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NI,
			NO.	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,
			SY,	TJ,	TM,	TN,	TR,	TT.	TZ,	UA,	UG,	US,	UΖ,	VC,	VN,	YU,	ZA,	ZM,
ZW																		
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			AZ,	BY,	KG,	KZ,	MD,	RU,	TJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,
			EE,	ES,	FI.	FR,	GB,	GR,	HU,	IE,	ıs,	IT,	LT,	LU,	MC.	NL,	PL,	PT,
			RO,	SE,	SI,	SK,	TR,	BF,	BJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,
			MR,	NE,	SN,	TD,	TG											
	DE	1020	0401	0194		A1		2005	1013		DE 2	004-	1020	0401	0194	2	0040	302
	EP	1725	543			A1		2006	1129		EP 2	005-	7156	54		2	0050	302
		R:	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	PI,	FR,	GB,	GR,	ΗU,	IE,
			IS.	IT.	LI.	LT.	LU,	MC.	NL,	PL,	PT,	RO.	SE,	SI,	sĸ,	TR		
DDIO	DIT	APP	t.N.	INFO							DE 2	004-	1020	0401	0194	. 2	0040	302

WO 2005-EP2179 W 20050302

OTHER SOURCE(S):

MARPAT 143:306326

ANSWER 4 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued) of I comprises: reaction of pyridazinone II  $\{Y=H, leaving group\}$  with diamine III whereby cyclization takes place (a) in the presence of an

acid

or H20 removing medium when Y = leaving group or (b) through oxidn., esp.
in the presence of O2, when Y = H. Alternatively, I can be prepd. from
pyridazin-3-one IV (Y1 = halogen, B(OH)2, Sn(C1-10-alkyl)3; Y2 = H,
protecting group! via pelladium-catalyzed coupling with R12 [Z = halogen,
B(OH)2, B(C1-10-alkyl)2, Sn(C1-10-alkyl)3, Zn(C1-10-alkyl)] followed by
deprotection of V (Y2 = protecting group). Thus,
4-(6-trifluoromethyl-1Hbenzimidazol-2-yl)-6-(pyridin-4-yl)-2H-pyridazin-3-one [I; A = B = E =
CH. acid

pyridazin-3-one deriva. with GSK-3β inhibitory activity) 864464-06-2 CAPLUS

Bosada-Ub-2 CAPLUS
4-Pyridazinecarboxamide, N-(2-amino-4-chlorophenyl)-6-[2-(ethylamino)-4-pyrimidinyl]-2,3-dihydro-3-oxo- (9CI) (CA INDEX NAME)

ANSWER 4 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

The invention relates to compds. I  $[A = CR3, N; B = CR4, N; D = CR5, N; E = CR6, N; R1 = halogen, un-, monosubstituted C1-10-alkyl, heterocyclyl, aryl, heteroaryl {optionally substituted with halogen, CN, NO2, OR7,$ 

COR7 CO2R7, OC(:0)R7, NR7R8, NHCOR7, CONR7R8, NHCSR7, CSNR7R8, SR7, SOR7.SO2R7.

CORP., OCIO.R7, NRTRE, NHCOR7, CONRTRE, NHCOR7, CONRTRE, SRT, SORT, SOZA, SOZA

audition to the physiol. compatible selts thereof, methods for the production of said compds. and the use thereof as medicaments. The procedure for the preparation

ANSWER 4 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

5

REFERENCE COUNT:

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L4 ANSMER 5 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:1002888 CAPLUS
DOCUMENT NUMBER: 143:266437
TITLE: Preparation of 4-benzimidazol-2-yl-pyridazin-3-ones PATENT ASSIGNEE(S): SOURCE: DOCUMENT TYPE: LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION: DATE PATENT NO. KIND APPLICATION NO. DE 102004010207 AU 2005219563 CA 2555161 WO 2005085231

7 20040302 20050218 20050218 20050218 BZ, CA, CH, FI, GB, GD, KR, KZ, LC, MZ, NA, NI, SK, SL, SM, YU, ZA, ZM, 0004010207 A1 20050915 DE 2004-102004010207
5219553 A1 20050915 AU 2005-219553
5161 A1 20050915 CA 2005-2555161
5085231 A1 20050915 MO 2005-EP2569
AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BM, BY, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MM, MX, MN, NN, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZW

RW: EW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, LE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CP, CG, CI, CM, GA, GN, GO, GM, ML, RM, NE, SN, TD, TG

EP 1723137

R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, PI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, LV, MK, YU

PRIORITY APPLN. INFO::

DE 2004-102004010207A 20040302 zw

WO 2005-EP2569

OTHER SOURCE(S): MARPAT 143:286437

ANSWER 5 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

864464-06-2 CAPLUS
4-Pyridazinecarboxemide, N-(2-amino-4-chloropheny1)-6-(2-(ethylamino)-4-pyrimidiny1)-2,3-dihydro-3-oxo- (9Cl) (CA INDEX NAME)

ANSWER 5 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

Title compds. I [A = CR3, N; B = CR4, N; D = CR5, N; E = CR8, N; R3, R4, R5 = H, halo, CN, etc.; R1 = halo, alkyl; R2 = H, alkyl; R8 = H, alkyl, alkenyl, etc.] and their pharmaceutically acceptable salts and formulations were prepared For example, saponification of Me ester II OMe)

3 afforded claimed carboxylic acid II (X = OH). In cyclin dependent kinase inhibition assays, 3-examples of compds. I exhibited IC50 values

L4 ANSWER 6 OP 27
ACCESSION NUMBER:
DOCUMENT NUMBER:
117LE:
2004:411321 CAPLUS
DOCUMENT NUMBER:
140:423683
Preparation of pyridazinones as protein Tau
phosphorylation inhibitors, their drugs and
pharmaceutical compositions containing them for
treatment, in particular, of central and peripheral
nervous system diseases
Lesuisse, Dominique; Halley, Franck; Baudoin,

Rooney, Thomas; Hoelder, Swen; Naumann, Thorsten; Tiraboachi, Gilles Aventie Pharma Sa, Pr. Pr. Demande, 65 pp. CODEN; FRAXBL Patent Prench 1

PATENT ASSIGNEE(S): SOURCE:

DOCUMENT TYPE: FAMILY ACC. NUM. COUNT:

PATENT	I	NFOR	MATI	on:														
		ENT I				KIN		DATE			APPL						ATE	
		2847						2004									0021	
		2506				A1		2004	0503		CA 2	002-	2606	022				
		2518				Al		2004			CA 2							
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			LK.	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NI,	NO.
			NZ,	OM,	PG.	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	TJ,
			TM,	TN,	TR,	TT,	TZ,	UA,	UG,	υz,	VC,	VN,	YU,	ZA,	ZM,	ZW		
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								TJ,										
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			TR,	BF,	BJ,	CF,	œ,	CI,	CM,	GΑ,	GN,	GQ,	G₩,	ML,	MR,	ΝE,	SN,	TD,
TG																		
А	U.	2003:	2834	14		A1		2004			AU 2	003-	2834	14		26	0031	119
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		2004				Al		2004	0909		US 2	003-	7153	58		21	0031	119
		2005		18		A1 A1		2005	0203		US 2	003-	7155	56_		20	0031	119
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		R:						ES,										PT,
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		2003						2005										
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			18,	ы,	LT,	LV,	FI,	RO,	πK,	CY,	AL,	TR,	вG,	CZ,	EE,	ΗŪ,	SK	

ACS on STN (Continued)
CN 2003-80105057 20031119
JP 2004-552660 20031119
NO 2005-2887 20050614
FR 2002-14443 A 20021119 ANSWER 6 OF 27 CN 1741999 COPYRIGHT 2007 20060301 20060323 20050729 JP 2006509748 NO 200500288 PRIORITY APPLN. INFO.: P 20030107 US 2003-438336P W 20031119 WO 2003-EP12949

WO 2003-EP12950

W 20031119

OTHER SOURCE(S): MARPAT 140:423683

AB Title compds. I (wherein A = CONHR, or NHCOR; R = (un)substituted heteroaryl/aryl/alkyl, hetero/aryl, fused hetero/aryl with cycloalkyl, etc.; Ar = (un)substituted aryl, Ph, pyridinyl; and their racemates, enantiomers, disaterecomers, mixtes, tautomers and pharmaceutically acceptable salts) were prepared as protein Tau phosphorylation inhibitors.

Three standard pharmaceutical compns. are given. For example, II was prepared by acylation of 3-0xo-6-phenyl-2,3-dihydropyridazine-4-carboxylic acid with 2,4-dichlorobensylamine. Selected invention compds. I inhibited phosphorylation of protein Tau with an ICSO = (100 µM. Thus, I and their pharmaceutical compns. are useful as kinase inhibitors and for

- ANSWER 6 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued) N-[2-(2,4-Dichlorophenyl)ethyl]-3-oxo-6-(pyridin-4-yl)-2,3-dihydropyridazine-4-carboxamide 691848-38-1P, N-(2,4-Dichlorophenyl)-3-oxo-6-(pyridin-4-yl)-2,3-dihydropyridazine-4-carboxamide 691848-41-6P, 3-oxo-6-(pyridin-4-yl)-7-(pyridin-4-yl)) methyl]-2,3-dihydropyridazine-4-carboxamide 691848-43-8P,
- coroxamica episse-41-6P, 3-0xo-6-(pyridin-4-yl)-N-(pyridin-4-yl) methyl)-2,3-dihydropyridazine-4-carboxamide 691848-43-8P,

  3-0xo-6-(pyridin-4-yl)-N-(3-(trifluoromethyl)benzyl]-2,3-dihydropyridazine-4-carboxamide 691848-45-0P, 3-0xo-6-(pyridin-4-yl)-N-(4-(trifluoromethyl)benzyl]-2,3-dihydropyridazine-4-carboxamide 691848-47-2P, N-(3,5-Dichlorobenzyl)-3-0xo-6-(pyridin-4-yl)-2,3-dihydropyridazine-4-carboxamide 691848-49-4P,

  3-0xo-6-(pyridin-4-yl)-N-(n-butyl)-2,3-dihydropyridazine-4-carboxamide 691848-51-8P, 3-([3-0xo-6-(pyridin-4-yl)-2,3-dihydropyridazine-4-carboxamide 691848-53-0P,

  3-0xo-6-(pyridin-4-yl)-N-(pyridin-3-ylmethyl)-2,3-dihydropyridazine-4-carboxamide 691848-53-0P,

  3-0xo-6-(pyridin-4-yl)-N-(pyridin-3-ylmethyl)-2,3-dihydropyridazine-4-carboxamide 691848-57-4P,

  N-(3,4-Dichlorobenzyl)-3-oxo-6-(pyridin-4-yl)-2,3-dihydropyridazine-4-carboxamide 691848-57-6P,

  N-(4-Hydroxybenzyl)-3-0xo-6-(pyridin-4-yl)-2,3-dihydropyridazine-4-carboxamide 691848-7-6P,

  N-(4-Hydroxybenzyl)-3-0xo-6-(pyridin-4-yl)-2,3-dihydropyridazine-4-carboxamide 691848-7-6P,

  N-(2,4-Dichlorobenzyl)-3-0xo-6-(3-benzyl-4-hydroxyphynyl)-2,3-dihydropyridazine-4-carboxamide 691848-99-4P, N-(2,4-Dichlorobenzyl)-3-0xo-6-(4-(pyridin-3-yl)-3,3-dihydropyridazine-4-carboxamide 691848-90-4P, N-(2,4-Dichlorobenzyl)-3-0xo-6-(9yridin-3-yl)-3,3-dihydropyridazine-4-carboxamide 691848-90-4P, N-(2,4-Dichlorobenzyl)-3-0xo-6-(9yridin-3-yl)-3,3-dihydropyridazine-4-carboxamide 691848-90-4P, N-(2,4-Dichlorobenzyl)-3-0xo-6-(4-(hydroxy)phenyl)-2,3-dihydropyridazine-4-carboxamide 691848-90-4P, N-(2,4-Dichlorobenzyl)-3-0xo-6-(4-(hydroxy)phenyl)-2,3-dihydropyridazine-4-carboxamide 691849-03-5P, N-(2,4-Dichlorobenzyl)-3-0xo-6-(4-(hydroxy)phenyl)-2,3-dihydropyridazine-4-carboxamide 691849-03-5P, N-(2,4-Dichlorobenzyl)-3-0xo-6-(4-(hydroxy)phenyl)-2,3-dihydropyridazine-4-carboxamide 691849-03-5P, N-(2,4-Dichlorobenzyl)-3-0xo-6-(4-(hydroxy)phenyl)-2,3-dihydropyridazine-4-carboxamide 691849-03-5P, N-(2,4-Dichlorobenzyl)-3-0xo-6-(4-(hydroxy)phenyl)-2,3-dihydropyridazine-4-
- N-(2,4-Dichlorophenyl)-3-oxo-6-(4-(hydroxy)phenyl)-2,3-dihydropyridazine-4-carboxamide 691849-07-7P, 3-0xo-6-(4-(hydroxy)phenyl)-N-(pyridin-4-ylmethyl)-2,3-dihydropyridazine-4-carboxamide 691849-08-8P, 3-0xo-6-(4-(hydroxy)phenyl)-N-[3-(trifluoromethyl)benzyl]-2,3-dihydropyridazine-4-carboxamide 691849-09-9P, 3-0xo-6-(4-(hydroxy)phenyl)-N-[4-(trifluoromethyl)benzyl]-2,3-dihydropyridazine-4-carboxamide 691849-10-2P,
- N-(3,5-Dichlorobenzyl)-3-oxo-6-(4-(hydroxy)phenyl)-2,3-dihydropyridazine-4-carboxamide 691849-11-3P, 3-Oxo-6-[4-(hydroxy)phenyl]-N-(n-butyl)-2,3-dihydropyridazine-4-carboxamide 691849-12-4P,
- 3-Oxo-6-[4-(hydroxy)phenyl]-N-(pyridin-3-ylmethyl)-2,3-dihydropyridazine-4-carboxamide 691849-13-5P, 3-Oxo-6-[4-(hydroxy)phenyl]-N-(pyridin-2-ylmethyl)-2,3-dihydropyridazine-4-carboxamide 691849-14-6P,
- N-(3,4-Dichlorobenzyl)-3-oxo-6-(4-(hydroxy)phenyl)-2,3-dihydropyridazine-4-carboxamide 691849-15-7P, N-[4-(Norpholin-4-yl)benzyl]-3-oxo-6[4-(hydroxy)phenyl)-2,3-dihydropyridazine-4-carboxamide
  691849-16-8P, N-(4-Hydroxy)benzyl)-3-oxo-6-[4-(hydroxy)phenyl)-2,3dihydropyridazine-4-carboxamide 691849-17-9P,
  N-(2,4-Dichlorobenzyl)-3-oxo-6-[4-(hydroxy)pyridin-3-yl)-2,3dihydropyridazine-4-carboxamide 691849-18-0P,
  N-Benzyl-3-oxo-6-[4-(hydroxy)pyridin-3-yl)-2,3-dihydropyridazine-4carboxamide 691849-19-1P, N-(4-Chlorobenzyl)-3-oxo-6-[4-

ANSWER 6 OP 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued) treatment, in particular, of central and peripheral nervous system diseases (no data).
691848-75-6P, N-(2,4-Dichlorobenzyl)-3-oxo-6-[4-(benzyloxy)phenyl]-2,3-dihydropyridazine-4-carboxamide 691848-77-8P,
N-Benzyl-3-oxo-6-[4-(hydroxy)phenyl]-2,3-dihydropyridazine-4-carboxamide RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Peactant or resease) (Reactant or reagent)

(intermediate; preparation of pyridazinones as protein Tau phosphorylation

inhibitors for treating central and peripheral nervous system diseases)

clseases)
RN 691848-75-6 CAPLUS
CN 4-Pyridszinecerboxamide,
N-{(2,4-dichlorophenyl)methyl]-2,3-dihydro-3-oxo6-(4-{phenylmethoxylphenyl]- (9CI) (CA INDEX NAME)

CAPLUS 4-Pyridazinecarboxamic (phenylmethyl) - (9CI) oxamide, 2,3-dihydro-6-(4-hydroxyphenyl)-3-oxo-N-(9CI) (CA INDEX NAME)

691848-21-2P, N-(2,4-Dichlorobenzyl)-3-oxo-6-phen-4-yl-2,3-dihydropyridazine-4-carboxamide 691888-24-5P, N-(2,4-Dichlorobenzyl)1-3-oxo-6-(pyridin-4-yl)-2,3-dihydropyridazine-4-carboxamide 691848-28-9P, N-Benzyl-3-oxo-6-(pyridin-4-yl)-2,3-dihydropyridazine-4-carboxamide 691848-31-4P, N-(4-Chlorobenzyl)-3-oxo-6-(pyridin-4-yl)-2,3-dihydropyridazine-4-carboxamide 691848-36-9P, N-(4-Chlorobenzyl)-3-oxo-6-(pyridin-4-yl)-2,3-dihydropyridazine-4-carboxamide 691848-36-9P,

ANSWER 6 OF 27 CAPLUS COPYRIGHT 2007 ACS on STM (Continued) (hydroxy) pyridin-3-yl]-2,3-dihydropyridazine-4-carboxamide 691849-20-4P, N-(2-Chlorobenzyl)-3-oxo-6-[4-(hydroxy) pyridin-3-yl]-2,3-dihydropyridazine-4-carboxamide 691849-21-5P,
N-[2-(2,4-Dihclorophenyl) ethyl]-3-oxo-6-[4-(hydroxy) pyridin-3-yl]-2,3-dihydropyridazine-4-carboxamide 691849-22-6P,
N-(2,4-Dichlorophenyl)-3-oxo-6-[4-(hydroxy) pyridin-3-yl]-2,3-dihydropyridazine-4-carboxamide 691849-23-7P,
-1-Oxo-6-(4-(hydroxy) pyridin-3-yl]-N-(pyridin-4-ylmethyl)-2,3-dihydropyridazine-4-carboxamide 691849-24-8P,
-1-Oxo-6-(4-(hydroxy) pyridin-3-yl]-N-(1-(trifluoromethyl) benzyl)-2,3-dihydropyridazine-4-carboxamide 691849-25-9P,
-1-Oxo-6-(4-(hydroxy) pyridin-3-yl]-N-(trifluoromethyl) benzyl)-2,3-dihydropyridazine-4-carboxamide 691849-26-0P,
N-(3,5-Dichlorobenzyl)-3-oxo-6-[4-(hydroxy) pyridin-3-yl]-N-(pyridin-3-yl]-2,3-dihydropyridazine-4-carboxamide 691849-27-1P,
-1-Oxo-6-(4-(hydroxy) pyridin-3-yl]-N-(pyridin-3-yl]-2,3-dihydropyridazine-4-carboxamide 691849-29-3P, 3-Oxo-6-(4-(hydroxy) pyridin-3-yl]-N-(pyridin-3-yl)-2,3-dihydropyridazine-4-carboxamide 691849-29-3P, 3-Oxo-6-(4-(hydroxy) pyridin-3-yl]-2,3-dihydropyridazine-4-carboxamide 691849-30-6P,
N-(3,4-Dichlorobenzyl)-3-oxo-6-(4-(hydroxy) pyridin-3-yl]-2,3-dihydropyridazine-4-carboxamide 691849-31-7P,
N-(4-(Morpholin-4-yl)benzyl]-3-oxo-6-(4-(hydroxy) pyridin-3-yl]-2,3-dihydropyridazine-4-carboxamide 691849-31-7P,
N-(4-(Morpholin-4-yl)benzyl]-3-oxo-6-(4-(hydroxy) pyridin-3-yl]-2,3-dihydropyridazine-4-carboxamide 691849-31-7P,
N-(4-(Morpholin-4-yl)benzyl]-3-oxo-6-(4-(hydroxy) pyridin-3-yl]-2,3-dihydropyridazine-4-carboxamide 691849-31-7P,
N-(4-(Morpholin-4--4-carboxamide 691849-31-7P,
N RI: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(protein Tau phosphorylation inhibitor; prepn. of pyridazinones as protein Tau phosphorylation inhibitors for treating central and peripheral nervous system diseases)
RN 691848-21-2 CAPPLUS
CN 4-Pyridazinecarboxamide,
N-[(2,4-dichlorophenyl)methyl]-2,3-dihydro-3-oxo-6-phenyl- (9Cl) (CA INDEX NAME)

RN 691848-24-5 CAPLUS
CN 4-Pyridazinecarboxamide,
N-[(2,4-dichlorophenyl)methyl]-2,3-dihydro-3-oxo6-(4-pyridinyl)- (9CI) (CA INDEX NAME)

L4 ANSWER 6 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 691848-28-9 CAPLUS CN 4-Pyridazinecarboxamide, 2,3-dihydro-3-oxo-N-(phenylmethyl)-6-{4-pyridinyl}- {9CI} (CA INDEX NAME)

RN 691848-31-4 CAPLUS CN 4-Pyridazinecarboxamide, N-[(4-chlorophenyl)methyl]-2,3-dihydro-3-oxo-6-(4pyridinyl)- (9Cl) (CA INDEX NAME)

RN 691848-33-6 CAPLUS CN 4-Pyridazinecarboxamide, N-[{2-chlorophenyl]methyl]-2,3-dihydro-3-oxo-6-{4pyridinyl}- {9Cl} (CA INDEX NAME)

L4 ANSWER 6 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 691848-43-8 CAPLUS
CN 4-Pyridazinecarboxamide, 2,3-dihydro-3-oxo-6-(4-pyridinyl)-N-[[3-(trifluoromethyl)phenyl]methyl]- (9CI) (CA INDEX NAME)

RN 691848-45-0 CAPLUS
CN 4-Pyridazinecarboxamide, 2,3-dihydro-3-oxo-6-(4-pyridinyl)-N-{[4-(trifluoromethyl)phenyl]methyl}- (9CI) (CA INDEX NAME)

RN 691848-47-2 CAPLUS CN 4-Pyridazinecarboxamide, N-[(3,5-dichlorophenyl)methyl]-2,3-dihydro-3-oxo-6-(4-pyridinyl)- (9CI) (CA INDEX NAME) L4 ANSWER 6 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 691848-36-9 CAPLUS CN 4-Pyridazinecarboxamide, N-[2-(2,4-dichlorophenyl)ethyl]-2,3-dihydro-3-oxo-6-(4-pyridinyl)- (9CI) (CA INDEX NAME)

RN 691848-38-1 CAPLUS
4-Pyridazinecarboxamide, N-(2,4-dichlorophenyl)-2,3-dihydro-3-oxo-6-(4-pyridinyl)- (921) (CA INDEX NAME)

RN 691848-41-6 CAPLUS
CN 4-Pyridazinecarboxamide, 2,3-dihydro-3-oxo-6-(4-pyridinyl)-N-(4-pyridinylmethyl)- (9CI) (CA INDEX NAME)

L4 ANSWER 6 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 691848-49-4 CAPLUS CN 4-Pyridazinecarboxamide, N-butyl-2,3-dihydro-3-oxo-6-(4-pyridinyl)- (9CI) (CA INDEX NAME)

RN 691848-51-8 CAPLUS
CN β-Alanine, N-[[2,3-dihydro-3-oxo-6-(4-pyridinyl)-4pyridazinyl]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)

RN 691848-53-0 CAPLUS CN 4-Pyridazinecarboxamide, 2,3-dihydro-3-oxo-6-(4-pyridinyl)-N-(3pyridinylmethyl)- (9CI) (CA INDEX NAME) L4 ANSWER 6 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 691848-55-2 CAPLUS CN 4-Pyridazinecarboxamide, 2,3-dihydro-3-oxo-6-(4-pyridinyl)-N-(2pyridinylmethyl)- (9CI) (CA INDEX NAME)

RN 691848-57-4 CAPLUS
CN 4-Pyridazinecarboxamide,
N-{(3,4-dichlorophenyl)methyl]-2,3-dihydro-3-oxo6-(4-pyridinyl)- (9CI) (CA INDEX NAME)

RN 691848-59-6 CAPLUS
CN 4-Pyridazinecarboxamide,
2,3-dihydro-N-{{4-(4-morpholinyl)phenyl}methyl}-3-

L4 ANSWER 6 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

$$\begin{array}{c} C1 \\ CH_2-NH-C \\ NH \\ Ph-CH_2 \\ OH \\ \end{array}$$

RN 691848-89-2 CAPLUS CN 4-Pyridazinecarboxamide, N-{(2,4-dichlorophenyl)methyl]-2,3-dihydro-3-oxo-6-(2-pyridinyl) (9CI) (CA INDEX NAME)

RN 691848-99-4 CAPLUS CN 4-Pyridazinecarboxamide, N-[(2,4-dichlorophenyl)methyl]-2,3-dihydro-3-oxo-6-(3-pyridinyl)-(9CI) (CA INDEX NAME)

RN 691849-03-3 CAPLUS
CN 4-Pyridazinecarboxamide, N-[(4-chlorophenyl)methyl]-2,3-dihydro-6-(4-hydroxyphenyl)-3-oxo-(9CI) (CA INDEX NAME)

L4 ANSWER 6 OF 27 CAPLUS COPYRIGHT 2007 ACS ON STN (Continued) OXO-6-(4-pyridinyl)- (9CI) (CA INDEX NAME)

RN 691848-67-6 CAPLUS
CN 4-Pyridazinecarboxamide, 2,3-dihydro-N-{(4-hydroxyphenyl)methyl}-3-oxo-6-(4-pyridinyl)- (9CI) {CA INDEX NAME}

RN 691848-79-0 CAPLUS
CN 4-Pyridazinecarboxamide, N-{(2,4-dichlorophenyl)methyl}-2,3-dihydro-6-(4-hydroxyphenyl)-3-oxo- (9Cl) (CA INDEX NAME)

RN 691848-81-4 CAPLUS
CN 4-Pyridazinecarboxamide, N-[(2,4-dichlorophenyl)methyl]-2,3-dihydro-6-[4-hydroxy-3-(phenylmethyl)phenyl]-3-oxo- (9CI) (CA INDEX NAME)

L4 ANSWER 6 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 691849-04-4 CAPLUS
CN 4-Pyridazinecarboxamide, N-[(2-chlorophenyl)methyl]-2,3-dihydro-6-(4-hydroxyphenyl)-3-oxo-(9C1) (CA INDEX NAME)

RN 691849-05-5 CAPLUS CN 4-Pyridazinecarboxamide, N-[2-(2,4-dichlorophenyl)ethyl]-2,3-dihydro-6-(4hydroxyphenyl)-3-oxo-(9CI) (CA INDEX NAME)

RN 691849-06-6 CAPLUS CN 4-Pyridazinecarboxamide, N-(2,4-dichlorophenyl)-2,3-dihydro-6-(4-01/29/2007

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### Page 12

L4 ANSWER 6 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued) hydroxyphenyl)-3-oxo- (9CI) (CA INDEX NAME)

RN 691849-07-7 CAPLUS CN 4-Pyridazinecarboxamide, 2,3-dihydro-6-(4-hydroxyphenyl)-3-oxo-N-(4pyridinylmethyl)- (9Cl) (CA INDEX NAME)

RN 691849-08-8 CAPLUS
CN 4-Pyridazinecarboxamide, 2,3-dihydro-6-(4-hydroxyphenyl)-3-oxo-N-[[3-(trifluoromethyl)phenyl]methyl]- (9CI) (CA INDEX NAME)

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L4 ANSWER 6 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (

(Continued)

RN 691849-09-9 CAPLUS
CN 4-Pyridazinecarboxamide, 2,3-dihydro-6-(4-hydroxyphenyl)-3-oxo-N-[[4-(trifluoromethyl)phenyl]methyl]- (9CI) (CA INDEX NAME)

RN 691849-10-2 CAPLUS
CN 4-Pyridazinecarboxamide, N-[(3,5-dichlorophenyl)methyl]-2,3-dihydro-6-(4-hydroxyphenyl)-3-oxo- (9CI) (CA INDEX NAME)

L4 ANSWER 6 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 691849-11-3 CAPLUS
CN 4-Pyridazinecarboxamide, N-buty1-2,3-dihydro-6-(4-hydroxypheny1)-3-oxo(9C1) (CA INDEX NAME)

RN 691849-12-4 CAPLUS
CN 4-Pyridazinecarboxamide, 2,3-dihydro-6-(4-hydroxyphenyl)-3-oxo-N-(3-pyridinylmethyl)- (9CI) (CA INDEX NAME)

RN 691849-13-5 CAPLUS
CN 4-Pyridazinecarboxamide, 2,3-dihydro-6-(4-hydroxyphenyl)-3-oxo-N-(2-pyridinylmethyl)- (9CI) (CA INDEX NAME)

L4 ANSWER 6 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued) .

RN 691849-14-6 CAPLUS
CN 4-Pyridazinecarboxamide, N-[[3,4-dichlorophenyl]methyl]-2,3-dihydro-6-(4-hydroxyphenyl)-3-oxo-[9CI] (CA INDEX NAME)

RN 691849-15-7 CAPLUS
CN 4-Pyridazinecarboxamide, 2,3-dihydro-6-(4-hydroxyphenyl)-N-[[4-(4-morpholinyl)phenyl]methyl]-3-oxo- (SCI) (CA INDEX NAME)

RN 691849-16-8 CAPLUS
CN 4-Pyridazinecarboxamide, 2,3-dihydro-6-(4-hydroxyphenyl)-N-[{4-hydroxyphenyl) methyli-3-oxo-(9C1) (CA INDEX NAME)

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### Page 13

ANSWER 6 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

691849-17-9 CAPLUS
4-Pyridazincearboxamide, N-[(2,4-dichlorophenyl)methyl]-2,3-dihydro-6-(4-hydroxy-3-pyridinyl)-3-oxo- (9CI) (CA INDEX NAME)

691849-18-0 CAPLUS
4-Pyridazinecarboxamide, 2,3-dihydro-6-(4-hydroxy-3-pyridinyl)-3-oxo-N-(phenylmethyl)- (9CI) (CA INDEX NAME)

691849-19-1 CAPLUS
4-Pyridazinecerboxemide, N-[(4-chlorophenyl)methyl)-2,3-dihydro-6-(4-hydroxy-3-pyridinyl)-3-oxo- (9C1) (CA INDEX NAME)

ANSWER 6 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN

RN 691849-23-7 CAPLUS CN 4-Pyridazinecarboxamide, 2,3-dihydro-6-(4-hydroxy-3-pyridinyl)-3-oxo-N-(4-pyridinylmethyl)- (9CI) (CA INDEX NAME)

RN 691849-24-8 CAPLUS
CN 4-Pyridazinecarboxamide,
2,3-dihydro-6-(4-hydroxy-3-pyridinyl)-3-oxo-N-[[3{trifluoromethyl)phenyl|methyl]- (9CI) (CA INDEX NAME)

RN 691849-25-9 CAPLUS
CN 4-Pyridazinecarboxamide,
2.3-dihydro-6-(4-hydroxy-3-pyridinyl)-3-oxo-N-[[4(trifluoromethyl)phenyl]methyl)- [9CI] (CA INDEX NAME)

ANSWER 6 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

691849-20-4 CAPLUS
4-Pyridazinczarboxamide, N-[(2-chlorophenyl)methyl]-2,3-dihydro-6-(4-hydroxy-3-pyridinyl)-3-oxo- (9CI) (CA INDEX NAME)

RN 691849-21-5 CAPLUS
CN 4-Pyridazinecarboxamide,
N-(2-(2,4-dichlorophenyl)ethyl)-2,3-dihydro-6-(4-hydroxy-3-pyridinyl)-3-oxo- (9CI) (CA INDEX NAME)

RN 691849-22-6 CAPLUS
CN 4-Pyridazinecarboxamide,
N-(2,4-dichlorophenyl)-2,3-dihydro-6-(4-hydroxy-3pyridinyl)-3-oxo- (9CI) (CA INDEX NAME)

ANSWER 6 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

691849-26-0 CAPLUS .
4-Pyridazinecarboxamide, N-{(3,5-dichlorophenyl)methyl}-2,3-dihydro-6-(4-hydroxy-3-pyridinyl)-3-oxo- (9CI) (CA INDEX NAME)

691849-27-1 CAPLUS

VA-Pyridazinecarboxamide, N-butyl-2,3-dihydro-6-(4-hydroxy-3-pyridinyl)-3-oxo- (9CI) (CA INDEX NAME)

RN 691849-28-2 CAPLUS
CN 4-Pyridazinecarboxamide,
2,3-dihydro-6-(4-hydroxy-3-pyridinyl)-3-oxo-N-(3-pyridinyl)methyl)- (9CI) (CA INDEX NAME)

ANSWER 6 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

691849-29-3 CAPLUS 4-Pyridazinecarboxamide, -dhydro-6-(4-hydroxy-3-pyridinyl)-3-oxo-N-(2-pyridinylmethyl)- (9CI) (CA INDEX NAME)

691849-30-6 CAPLUS

691849-30-6 CAPLUS
4-Pyridazinecarboxamide, N-[(3,4-dichlorophenyl)methyl]-2,3-dihydro-6-(4-hydroxy-3-pyridinyl)-3-oxo- (9CI) (CA INDEX NAME)

691849-31-7 CAPLUS

4-Pyridazinecarboxamide, 2,3-dihydro-6-(4-hydroxy-3-pyridinyl)-N-[[4-(4-morpholinyl)phenyl]methyl]-3-oxo- (9CI) (CA INDEX NAME)

L4 ANSWER 7 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:205958 CAPLUS
DOCUMENT NUMBER: 142:93705
TITLE: Product class 8: pyridazines
AUTHOR(S): Haider, N.: Holzer, W.
CORPORATE SOURCE: Germany
SOURCE: Science of Synthesis (2004), 16, 125-249
CODEN: SSCVJ9
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journel; General Review
LANGUAGE: English
AB A review. Methods of preparing pyridazines are reviewed including
cyclization, ring transformation, aromatization, and substituent
modification.

IT 87769-55-0

IT

87769-56-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of pyridazines via cyclization, ring transformation, aromatization, and substituent modification)
87769-56-0 CAPLUS
4-Pyridazinecarboxamide, 2,3-dihydro-3-oxo-6-phenyl- (9CI) (CA INDEX NAME)

REFERENCE COUNT:

THERE ARE 720 CITED REPERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

ANSWER 6 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN

(Continued)

691849-32-8 CAPLUS
4-Pyridazinecarboxamide, 2,3-dihydro-N-[(4-hydroxyphenyl)methyl]-6-(4-hydroxy-3-pyridinyl)-3-oxo- (9CI) (CA INDEX NAME)

RN 691849-34-0 CAPLUS
CN 4-Pyridazinecarboxamide,
N-[(24-4ichlorophenylmethyl]-2,3-dihydro-3-oxo6-(4-pyrimidinyl)- (9CI) (CA INDEX NAME)

REFERENCE COUNT:

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

L4 ANSWER 8 OF 27 CAPLUS COPYRIGHT 2007 ACS ON STN ACCESSION NUMBER: 2003:293627 CAPLUS COCUMENT NUMBER: 139:94783

TITLE:

139:94783
5-Aryl-pyrazolo[3,4-b]pyridazines: potent inhibitors of glycogen synthase kinase-3 (GSK-3) Witherington, Jason; Bordas, Vincent; Haigh, David; Hickey, Deirdre M. B.; Ife, Robert J.; Rawlings, Anthony D.; Slingsby, Brian P.; Smith, David G.; AUTHOR(S):

Ward.

CORPORATE SOURCE:

Robert W. Neurology Centre of Excellence for Drug Discovery, Department of Medicinal Chemistry, GlaxoSmithKline Research Limited, Harlow, CM19 5AW, UK Bioorganic & Medicinal Chemistry Letters (2003), 13(9), 1581-1584 CODEN: BMCLES; ISSN: 0960-894X Elsevier Science B.V. SOURCE:

PUBLISHER:

DOCUMENT TYPE: LANGUAGE:

English CASREACT 139:94783 OTHER SOURCE(S):

R SOURCE(S):

CASREAT 139:94783
Introduction of a nitrogen atom into the 6-position of a series of pyrazolo[3,4-b]pyridines led to a dramatic improvement in the potency of GSK-3 inhibition. Rationalisation of the binding mode suggested participation of a putative structural water mol., which was subsequently confirmed by X-ray crystallog.
87769-56-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(arylpyrazolopyridazines as potent inhibitors of glycogen synthase kinase-1)
87769-56-0 CAPLUS
4-Pyridazinecarboxamide, 2,3-dihydro-3-oxo-6-phenyl- (9CI) (CA INDEX NAME)

REFERENCE COUNT:

THERE ARE 19 CITED REFERENCES AVAILABLE FOR

PORMAT

RECORD. ALL CITATIONS AVAILABLE IN THE RE

L4 ANSWER 9 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:
DOCUMENT NUMBER:
136:263177

Freparation of pyridazinones and triazinones
exhibiting excellent inhibitory activities against
AMPA receptor and/or kainate receptor

INVENTOR(S):
Nagato, Satoshi; Kawano, Koki; Ito, Koichi; Norimine,
Yoshihiko; Ueno, Kohshi; Hanada, Takahisa; Amino,
Hiroyuki; Ogo, Makoto; Hatakeyama, Shinji; Ueno,
Masataka; Groom, Anthony John; Rivers, Leanne; Smith,
Terence
PATENT ASSIGNEE(S):
SURCE:
PATENT ASSIGNEE(S):
PISSO CO., Ltd., Japan
PCT Int. Appl., 174 pp.
CODEN: PIXXD2
Patent
Japanese
PAMILY ACC. NUM. COUNT:
1

LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PA	TENT						DATE												
wo	2002																		
	W:	AE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BE	Э,	BG,	BR,	BY,	BZ,	C	١,	CH,	CN,
		co,	CR,	Cυ,	CZ,	DE,	DK,	DM,	DZ,	EC	2,	EE,	ES,	FI,	GB,	GE	٥,	GΕ,	GH,
							IN,												
							MD,												
		PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SI	٠,	TJ,	TM,	TR,	TT,	TZ	٠,	UΑ,	UG,
			UΖ,																
	RW:						MZ.												
							GB,												
							GΑ,												
AU	2001 2422	0902	29		A5		3003	0326		ΑU	20	001-	9022	9			20	010	917
CA	2422	589			A1		2003	0317		CA	20	001-	2422	589			20	010	917
EP	1319																		
	R:						ES,						LI,	LU,	NL,	SE	٤,	MC,	PT,
		ΙE,	SI,	LT,	LV,	PΙ,	RO,	MK,	CY,	ΑI	٠,	TR							
HU	2003 5247	0250	8		A2		2003	1229		НU	20	003-	2508				20	010	917
NZ	5247	45			A		2006	0127		NZ	20	01-	5247	45			30	010	917
RU	2279	428			C2		2006	0710		RU	20	003-	1110	13			20	010	917
ZA	2003	0015	37		A		2004	0225		ZA	20	003 -	1537				20	030	225
МО	2003	0012	32		A		2003	0519		NO	20	003-	1232				20	030	317
US	2003	2250	81		A1		2003	1204		US	20	003-	3807	13			20	030	318
ŲS	2006	1896	22		A1		2006	0824		US	20	06	6080	78			20	060	121
PRIORIT	5247 2279 2003 2003 2003 2006 Y APP	LN.	INFO	. :						JP	20	000-	2826	36		A	20	000	918
										JΡ	20	000-	2894	12		A	20	000	<b>322</b>
										JP	20	00-	3426	14		A	20	001	109
										GB	20	01-	2822			A	20	010	205
										GB	20	01-	2824			A	20	010	205
										wo	20	01-	JP80	58		w	20	010	917
										US	20	03-	38071	33		Bı	20	030:	318

ANSWER 9 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
Balo's disease, HIV myelopathy, HTLV myelopathy, progressive white
substance encephalopathy or secondary demyelinating diseases (including
central nervous system erythematodes, tuberous multiple polyarteritis,
Sjoegren syndrome, sarcoidosis, or cerebral angitis). Thus, to a soln.
of 75 mg
-iodophenyl)-4-(3-pyridyl)-2,3-dihydro-5H-[1]benzopyrano[4,3c]pyridazin-1-one in 2 mL 1-methyl-2-pyrrolidone were added 55 mg Zn(CN)2
and 5 mg tetrakis(triphenylphosphine)palladium and stirred at 100°
for 1 h to give 34 mg 2-(2-cyanophenyl)-4-(3-pyridyl)-2,3-dihydro-5H[1]benzopyrano[4,3-c]pyridazin-3-one [11]. II inhibited the AMPA-induced
influx of Ca into rat fetal cerebral cortex nerve cells with IC50 of 0.02
µM.

μΜ.

404933-57-9P, 6-Phenyl-4-(((2-morpholinoethyl)amino)carbonyl)-2Hpyridazin-3-one 404933-59-1P, 6-Phenyl-4-(((2morpholinoethyl)amino)carbonyl)-2H-pyridazin-3-one hydrochloride
RE: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation of pyridazinones and triazinones exhibiting excellent
inhibitory activities against AMPA receptor and/or kainate receptor

treatment or prevention of acute or chronic neurodegenerative

diseases)
RN 404933-57-9 CAPLUS
CN 4-Pyridazinecarboxamide, 2,3-dihydro-N-[2-(4-morpholinyl)ethyl]-3-oxo-6-phenyl- (9C1) (CA INDEX NAME)

404933-59-1 CAPLUS
4-Pyridazinecarboxamide, 2,3-dihydro-N-[2-(4-morpholinyl]ethyl]-3-oxo-6-phenyl-, monohydrochloride (9CI) (CA INDEX NAME)

● HC1

THERE ARE 12 CITED REPERENCES AVAILABLE FOR

REFERENCE COUNT: Habte

ANSWER 9 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN R SOURCE(S): MARPAT 136:263177 (Continued)

The title compds. [I; wherein Al, A2 and A3 are each independently C3-8 cycloalkyl, C3-8 cycloalkenyl, a 5- to 14-membered nonarom. heterocyclic group, a C6-14 aromatic carbocyclic group, or a 5- to 14-membered matic heterocyclic group, any of which may be substituted; Q is O, S, or NH; Z is C or N; X1, X2 and X3 are each independently a single bond, optionally substituted C1-6 alkylene, optionally substituted C2-6 alkenylene, optionally substituted C2-6 alkenylene, optionally substituted C2-6 alkynylene, NH, O, NHO, CONH, S00-2, or the like; R1 and R2 are each independently hydrogen or optionally substituted C1-6 alkyl, or alternatively R1 and R2 may be united in such a way that CR2-ZR1 forms C:C; and R3 is hydrogen, optionally substituted C1-6 alkynyl, or c2-6 alkenyl, or c3-6 alkenyl, or alternatively R3 may unite with any

on the ring Al or Al to form together with the atom an optionally substituted C5-8 carbocycle or an optionally substituted 5- to 8-membered heterocycle] or salts thereof, or hydrates of both are prepared These compds. do not inhibit N-methyl-D-aspartic acid (NMDA) receptor but they are excellent inhibitors of or amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid (AMPA) receptor and/or kainic acid receptor.

are useful for the prevention or treatment of acute neurodegenerative diseases, acute cerebral vascular disorders, head injury, spinal cord injury, nerve disorders caused by low oxygen or sugar level, chronic neurodegenerative diseases, Alzheimer's disease, Parkinson's diseases, Huntington's chorea, ampotrophic lateral sclerosis, spinocerebellar degeneration, epilepsy, hepatic encephalopathy, peripheral nerve

degeneration, epilepsy, hepatic encepharopathy, policy disorder, Parkinson's syndrome, spastic hemiplegia (paralysis), pain, neuralgia, schizophrenia, anxiety, drug dependence, nausea, vomiting, urination disorder, eye sight disorder caused by glaucoma, hearing disorders caused by antibiotics, food poisoning, infectious encephalomyelitis (including HIV encephalomyelitis), creebral wascular dementia, dementia caused by meningitis, and nerve diseases. They are also used for treatment or prevention of demyelinating diseases including encephalitis, acute disseminated encephalomyelitis, multiple sclerosis, acute multiple neuritis, Guillain-Barre syndrome, chronic inflammatory demyelinating multiple nerve disorders, Marchifava-Bignami disease, central bulbopontine

bulbopontine breakdown, optic nerve myelitis, Devic's disease (neuromyelitis optica),

L4 ANSWER 9 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued) RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSMER 10 OF 27
ACCESSION NUMBER:
DOCUMENT NUMBER:
131:228277
TITLE:
INVENTOR(S):
Okuchi, Masao; Kyotani, Yoshinori; Shigyo, INVENTOR(S): Hiromichi;

Yoshizaki, Hideo; Koshi, Tomoyuki; Kitamura, Takahiro;

Mateude, Takayuki; Oda, Soichi; Habata, Yuriko; Kotaki, Kyoko Kowa Co., Ltd., Japan; et al. PCT Int. Appl., 112 pp. CODEN: PIXXD2 Patent Japanese 1

PATENT ASSIGNEE(S): SOURCE:

LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PA	TENT	NO.			KIN	D	DATE			APP:	LICAT	ION	NO.		ם	ATE	
	9944																
	W:										, BY,						
											, HR,						
		KE,	KG,	KR,	KZ,	LC.	LK,	LR,	LS,	LT	, LU,	LV,	MD,	MG,	MK,	MN,	MW
		MX,	NO,	NZ,	PL,	PT.	RO,	RU,	SD,	SE	, 5G,	SI,	SK,	SL,	TJ,	TM,	TR.
							VN,										
	RW:										, ZW,						
		ES,	FI,	FR,	GB,	GR,	IE,	IT,	LU,	MC	, NL,	PT,	SE,	BP,	BJ,	CF,	œ,
											, TD,						
TW	2412	95			В		2005	1011		TW	1999-	8810	2854		1	9990	225
CA	2321	254			A1		1999	0910		ÇA	1999-	2321	254		1	9990	226
	9926									ΑU	1999-	2641	4		1	9990	226
	7394																
EP	1061																
	R:			CH,	DE,	DK,	ES,	FR,	GB,	GR	, IT,	LI,	LU,	NL,	SE,	MC,	PT.
			PΙ														
	5061										1999-						
	2001										2001 -						
	2221										2000-						
	6403										2000-						
	2000																
	1035				A1		2004	0820			2001-						
PRIORIT	Y APP	LN.	INFO	. :						JP :	1998-	4939	6		A 1	9980	302

WO 1999-JP925

GΙ

ANSWER 10 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued) ANSWER 10 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

AB The title compds. I (R1 represents lower alkoxy, lower alkylthio or halogeno; R2 represents H, lower alkoxy, lower alkylthio or halogeno; R3 represents OH, CN, halogeno, lower cycloalkyl, lower alkyl or lower alkenyl optionally substituted by an optionally substituted aromatic group or optionally substituted carbamoyl; R4 represents COOH, lower alkoxycarbonyl, optionally substituted carbamoyl, optionally substituted amino or optionally substituted ureido; and the dotted line means a single

amino or optionally substituted ureido; and the dotted line means a single bond or a double bond between the carbon atoms at the 4- and 5-positions] are prepared I are useful as preventivee/remedies for immunol. diseases, inflammatory diseases, ischemic diseases, etc. In an in vitro test using cells, 2-cyclopropylmethyl-6-(4-methoxyphenyl)-4-methylcarbamoyl-2H-pyridazin-3-one showed ICSo of 0.038 μM against lipopolysaccharide-induced interleukin 1 β production

17 43862-95-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of pyridazine derivs. as interleukin 1β production inhibitors)

RN 243862-95-5 CAPLUS

CN 4-Pyridazinecarboxamide, 2,3-dihydro-6-(4-methoxyphenyl)-N-methyl-3-oxo-(9CI) (CA INDEX NAME)

REFERENCE COUNT:

THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L4 ANSWER 11 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN ACCESSION NUMBER: 1999:325927 CAPLUS DOCUMENT NUMBER: 130:338106 TITLE: Preparation of pyrazole derivated to the control of the contro

130:338106
Preparation of pyrazole derivatives as adenosine Al and A2 antagonists
Akahane, Atsushi; Kuroda, Satoru; Itani, Hiromichi Pujisawa Pharmaceutical Co., Ltd., Japan PCT Int. Appl., 32 pp.
CODEN: PIXXD2
Patent

INVENTOR(S):

PATENT ASSIGNEE(S): SOURCE:

DOCUMENT TYPE:

PAMILY ACC. NUM. COUNT: PATENT INFORMATION:

KIND DATE DATE MO 9924424 A1 19990520 WO 1998-JP4892 19981028
W: CA, CN, JP, KR, US
RW: AT, BE, CH, CY, DE, DK, ES, PI, FR, GB, GR, IE, IT, LU, MC, NL,
PT, SE
PRIORITY APPLN. INFO::

OTHER SOURCE(S):

MARPAT 130:338106

AB The title compds. I (R1 and R2 may be the same or different and each represents optionally substituted aryl; R3 represents hydrogen, lower alkyl, or optionally substituted aryl; R3 represents hydrogen, lower alkyl, or optionally substituted ar(lower) alkyl; and R4 represents O1 (Wherein R5 represents optionally substituted ar(lower) alkyl or lower alkanoyl(lower) alkyl), etc.], useful as adenosine A1 and A2 antagonists (no data), are prepared I may serve as preventives and/or remedies for ischemic heart diseases such as angina pactorie, peripheral vascular diseases such as claudication, cerebral ischemie, migraine, diabetes, melancholis, Perkinson's disease, etc. (no date). For example, 3,5-diphenyl-4-(2-(3-methoxybenzyl)-3-oxo-2,3-dihydropyridazin-6-yllpyrazole was prepared
I7 224573-04-0P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study); PREP (Preparation); TRU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USSS (Uses) (preparation of pyrazole deriva, as adenosine A1 and A2 antagonists)
RN 224573-04-0 CAPUS
CN 4-Pyridazinecarboxylic acid, 2,3-dihydro-6-(1-methyl-3,5-diphenyl-1H-pyrazol-4-yl)-1-oxo-, hydrazide (9CI) (CA INDEX NAME)

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ANSWER 11 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

REFERENCE COUNT:

THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

KIND

DATE

MARPAT 127:262667

19970819

ACCESSION NUMBER: 12 OF 27 CAPLUS COPYRIGHT 2007 ACS ON STN 1997:558055 CAPLUS DOCUMENT NUMBER: 127:362667 Preparation of DVFAXOLOUS F ---

INVENTOR (S) PATENT ASSIGNEE(S): SOURCE: DOCUMENT TYPE: PAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PATENT NO.

OTHER SOURCE(S):

JP 09216883 PRIORITY APPLN, INFO.:

AB The deriva. I [R1 = ary1; R2 = oxodihydropyridazinyl O [R3 = H, lower alkyl, acyl-lower alkyl, acyl-lower alkyl, (un)substituted heterocyclyl, (un)substituted lower aralkyl; R4 = H, acyl. cyano, heterocyclyl, lower hydroxyalkyl, (unprotected) amino; R5 = H, lower alkyl; R4 and/or R5 = substituent], pyridazinyl Ol [R6 = halo, lower alkyl; R4 and/or R5 = substituent], pyridazinyl Ol [R6 = halo, lower alkoxy, (un)substituted arylamino; R7 = acyl, lower hydroxyalkyl]) or their pharmaceutically acceptable salts are claimed. Also claimed are pharmaceuticals containing I or their salts and carriers. I show cognition-enhancing, analgesic, antidepressant, vasodilating, diuretic, cardiotonic, renal circulation-increasing, lipolysis-promoting, antiasthmatic, insulin secretion-promoting, platelet aggregation-inhibitors, antihypertensives, renal failure inhibitors, and diuretics.
3-Propionyl-2-phenylpyrazolo[1,5-a]pyridine (0.50 g), prepared by acylation of 2-phenylpyrazolo[1,5-a]pyridine with (EtCO)20, was successively treated with CO(CO2Et)2 at 100° for 65 h then with H2NNH2.H2O at 125° for 8 h to give 0.42 g 3-{4-(2-isopropylidenehydrazinolcarbony 1-5-methyl-3-oxo-2,3-dihydropyridazin-6-yl]-2-phenylpyrazolo[1,5-a]pyridine.

IT 195267-03-29 195827-00-0P 195827-01-IP 195827-02-2P 195827-03-3P 195827-03-4P R1: BAC (Biological activity or effector, except adverse); BSU (Biological

127:262667
Preparation of pyrazolo[1,5-a]pyridine derivatives as adenosine antagonists and their pharmaceutical uses Kuroda, Satoshi; Itani, Hiromichi; Akabane, Atsushi Fujisawa Pharmaceutical Co., Ltd., Japan CoDEN: JKUXAF
Patent
Japanese
1

APPLICATION NO.

JP 1996-24146 JP 1996-24146

DATE

19960209 19960209

ANSWER 12 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued) study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of pyrazolo[1,5-a]pyridine derivs. as adenosine antagonists

and

their pharmaceutical uses)
195836-98-3 CAPLUS
4-Pyridazinecarboxylic acid, 2,3-dihydro-3-oxo-6-(2-phenylpyrazolo[1,5-a]pyridin-3-yl)-, hydrazide (9CI) (CA INDEX NAME)

195827-00-0 CAPLUS
4-Pyridazinecarboxylic acid, 2,3-dihydro-3-oxo-6-(2-phenylpyrazolo[1,5-a]pyridin-3-yl)-, 2-[(1,1-dimethylethoxy)carbonyl]hydrazide (9CI) (CA INDEX NAME)

195827-01-1 CAPLUS 4-Pyridazinecarboxamide, 2,3-dihydro-3-oxo-6-(2-phenylpyrazolo[1,5-a]pyridin-3-yl)-N-(3,4,5-trimethoxyphenyl)- (9CI) (CA INDEX NAME)

195827-02-2 CAPLUS RN

Habte

ANSWER 12 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued) Glyctine, N-[[2,3-dihydro-3-oxo-6-(2-phenylpyrazolo(1,5-a)pyridainylcarbonyll-, ethyl ester (9C1) (CA INDEX NAME)

195827-03-3 CAPLUS Glycine, N-[(2,3-dihydro-3-oxo-6-(2-phenylpyrazolo[1,5-a]pyridin-3-yl)-4-pyridazinyl]carbonyl]- (9CI) (CA INDEX NAME)

195827-04-4 CAPLUS 4-Pyridazinecarboxamide, 2,3-dihydro-3-oxo-6-(2-phenylpyrazolo[1,5-a]pyridin-3-yl)- (9CI) (CA INDEX NAME)

L4 ANSWER 13 OF 27
ACCESSION NUMBER:
DOCUMENT NUMBER:
11993:625966 CAPLUS
119:225966 CAPLUS
119:225966

DOCUMENT TYPE: LANGUAGE: PAMILY ACC. NUM. COUNT: PATENT INFORMATION:

	PA'	TENT	NO.			KIN	•	DATE		AP	PL	CAT	ION	NO.		D	ATE	
																-		
	EP	537€	96			A1		1993	0421	EP	15	992-	117	507		1	9921	014
		R:	AT,	BE,	CH,	DE,	DK.	ES,	FR,	GB, G	R,	IE,	IT	, LI,	LU,	NL,	PT,	SE
	DE	4134	467			A1		1993	0422	DE	19	991-	413	4467		1	9911	018
	US	5418	233			A		1995	0523	US	19	992-	961	135		1	9921	014
	CA	2080	748			A1		1993	0419	CA	19	992-	208	0748		1	9921	016
	NO	9204	027			A		1993	0419	NO	19	992-	402	7		1	9921	016
	AU	9227	7062			A		1993	0422	AU	19	992-	270	62		1	9921	016
	AU	6629	30			B2		1995	0921									
	HU	6227	2			A2		1993	0428	HU	19	992-	326	4		1	9921	016
	J₽	0522	1992			Α		1993	0831	JP	15	992-	277	578		1	9921	016
	ZA	9207	994			Α		1994	0418	ZA	19	992-	799	4		1	9921	016
	US	5563	268			A		1996	1008	US	19	95-	375	084		1	9950	119
RI	DRIT	APE	LN.	INFO	. :					DE	19	91-	413	4467		A 1	9911	018

US 1992-961135

OTHER SOURCE(S): MARPAT 119:225966
AB The preparation of title compds. with fibrinogen-binding, thromboxane, AB and

blood platelet aggregation inhibitor activity is claimed. Thus, reaction of 6-(4-amidinophenyl)-4-[[4-(methoxycarbonyl)butyl]aminocarbonyl]-2-methyl-(2H)-pyridazin-3-one (preparation given) with LiOH.H2O in a

methyl-(2H)-pyridazin-3-one (preparation given) with LiOH.H2O in a mixture of THF-H2O gave 91.1

6-(4-amidinophenyl)-4-((4-carboxybutyl)aminocarbonyl)-2-methyl-(2H)-pyridazin-3-one. Similarly, a number of pyridazinone and pyrimidine derive. were prepared and their biol. activity is described. IT 150594-47-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation and reaction of, in preparation of thromboxane formation inhibitor)

RN 150594-47-1 CAPLUS

CN Pentenoic acid, 5-[[6-(4-cyanophenyl)-2,3-dihydro-3-oxo-4-pyridazinyl)carbonyl]aminol- (9CI) (CA INDEX NAME)

L4 ANSWER 13 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN CN 150595-14-5 CAPLUS

Cyclohexanecarboxylic acid, 4-[[[6-[4-{aminoiminomethyl]phenyl]-2,3-dihydro-3-oxo-4-pyridazinyl]carbonyl]amino]-, methyl ester,

hydrochloride, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.

●x HCl

150595-38-3 CAPLUS

CA INDEX NAME)

Relative stereochemistry.

ANSWER 13 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

150594-75-5P 150594-91-5P 150595-00-9P 150595-14-5P 150595-38-3P .

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and thromboxane formation inhibiting activity of) 150594-75-5 CAPLUS Pentanoic acid, 5-[[[6-[4-{aminoiminomethyl]phenyl]-2,3-dihydro-3-oxo-4-pyridazinyl]carbonyl]amino]- (9CI) (CA INDEX NAME)

150594-91-5 CAPLUS
Cyclohexanecarboxylic acid, 4-[[[6-[4-(aminoiminomethy1)pheny1]-2,3-dihydro-3-oxo-4-pyridaziny1]carbony1]amino]-, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.

150595-00-9 CAPLUS Pentanoic acid, 5-[[[6-[4-(aminoiminomethy1)pheny1]-2,3-dihydro-3-oxo-4-pyridaziny1]carbony1]amino]-, methyl ester (SCI) (CA INDEX NAME)

ANSWER 13 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN

### 10/715,556

### Page 19

L4 ANSWER 14 OF 27 CAPLUS COPYRIGHT 2007 ACS ON STN ACCESSION NUMBER: 1993:517098 CAPLUS DOCUMENT NUMBER: 119:117098

ENT NUMBER

TITLE:

INVENTOR(S):

119:117098
Preparation of 2-pyrrolidinone-3-acetates and analogs as cell aggregation inhibitors
Austel, Volkhard; Eisert, Wolfgang; Himmelsbach,
Frank; Linz, Guenter; Mueller, Thomas; Pieper, Helmut;

Weisenberger, Johannes
Thomae, Dr. Karl, G.m.b.H., Germany
Eur. Pat. Appl., 73 pp.
CODEN: EPXXDW
Patent
German 1 PATENT ASSIGNEE(S): SOURCE:

DOCUMENT TYPE:

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 528369	A2	19930224	EP 1992-113877	19920814
EP 528369	A3	19930421		
EP 528369	B1	19991124		
R: AT, BE, CH,	DE, DK	, ES, FR, G	B, GR, IE, IT, LI, LU,	NL, PT, SE
DE 4127404	A1	19930225	DE 1991-4127404	19910819
AT 186906	T	19991215	AT 1992-113877	19920814
CA 2076311	A1	19930220	CA 1992-2076311	19920818
NO 9203235	A	19930222	NO 1992-3235	19920818
AU 9221119	A	19930225	AU 1992-21119	19920818
AU 654372	B2	19941103		
JP 06025227	A	19940201	JP 1992-219149	19920818
ZA 9206205	A	19940218	ZA 1992-6205	19920818
IL 102847	A	19961114	IL 1992-102847	19920818
US 5455348	A	19951003	US 1993-173603	19931223
PRIORITY APPLN. INFO.:			DE 1991-4127404	A 19910819
			116 1002-020020	81 10020014

OTHER SOURCE(S):

MARPAT 119:117098

ANSWER 14 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 149354-79-0 CAPLUS
CN 3-Pytrolidineacetic acid,
5-[[[6-[4-(aminoiminomethyl)phenyl]-2,3-dihydro3-oxo-4-pytridazinyl]carbonyl]amino)methyl-2-oxo-1-(3-phenylpropyl)-,
methyl ester, monohydrochloride, (35-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

● HC1

14935-41-9 CAPLUS
3-Pyrrolidineactic acid, 5-[[[6-(4-cyanophenyl)-2,3-dihydro-3-oxo-4pyridazinyl]carbonyl)amino]methyl-2-oxo-, methyl ester, (38-trans)-

(9CI) (CA INDEX NAME)

Absolute stereochemistry.

ANSWER 14 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued) alkylene; X2 = bond, O, NH, SO2NH, etc.; X3, X5 = (heterolcycloalkylene, (heterolarylene, etc.; X4 = bond, O, CH2, CO, NH, etc.; X3X4X5 = phenylene, (CH2) 3-5, etc.; Y = alkylene, NNCH2, OCH2, etc.) were prepd. Thus, 4-(5-cyano-2-pyridyl)phenol (prepn. given) was condensed with

(38,58)-3-[(tert-butyloxycarbonyl)methyl]-5-[(methanesulfonyloxy)methyl]-2-pyrrolidinone and the product converted in 2 steps to title compd. (38,58)-I which had EO50 of 0.06 µM against collagen-induced platelet aggregation in vitro. II 149354-60-9P 149354-62-1P 149354-79-0P 149355-41-9P 149355-53-3P 149377-22-1P

RL: BAC (Biological activity or effector, except adverse); BSU

(Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (preparation); (preparation of, as cell aggregation inhibitor); RN 149354-60-9 CAPLUS

CN 3-Pyrrolidineacetic acid,
5-[[[6-[4-(aminoiminomethyl]phenyl]-2,3-dihydro-3-oxo-4-pyridazinyl]carbonyl]amino]methyl]-2-oxo-, (3S-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Absolute stereochemistry.

RN 149354-62-1 CAPLUS
CN 3-Pyrrolidineacetic acid,
5-[[[6-[4-(aminoiminométhyl]phenyl]-2,3-dihydro3-oxo-4-pyridazinyl]carbonyl]amino]methyl]-2-oxo-1-(3-phenylpropyl)-,
(38-trans)- (9CI) (CA INDEX NAME)

ANSWER 14 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

149355-53-3 CAPLUS
3-Pyrrolidineacetic acid, 5-[[[[6-(4-cyanophenyl)-2,3-dihydro-3-oxo-4-pyridazinyl]carbonyl]amino]methyl]-2-oxo-1-(3-phenylpropyl)-, methyl ester, (35-trans)- (9Cl) (CA INDEX NAME)

Absolute stereochemistry

149377-23-1 CAPLUS

RN 149377-33-1 CAPADO

3-Pyrrolidineacetic acid,
5-[[[6-[4-(aminoiminomethyl)phenyl]-2,3-dihydro3-oxo-4-pyridaxinyl]carbonyl]amino|methyl]-2-oxo-, methyl ester,
monohydrochloride, (3S-trens)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

• HCl

(Continued)

PAGE 1-A

L4 ANSWER 14 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN

L4 ANSMER 15 OF 27 CAPLUS COPYRIGHT 2007 ACS ON STN ACCESSION NUMBER: 1991:206976 CAPLUS COPYRIGHT 2007 ACS ON STN 114:206976 CAPLUS COPYRIGHT 2007 ACS ON STN ACCESSION NUMBER: 114:206976 CAPLUS C

114:206976
Synthesis of aza analogs of amrinone
Singh, Baldev; Lesher, George Y.
Dep. Med. Chem., Sterling Res. Group, Rensselaer, NY,
12144, USA
Hoterocycles (1990), 31(12), 2163-72
CODEN: HTCYAN; ISSN: 0365-5414
Journal CORPORATE SOURCE:

SOURCE:

DOCUMENT TYPE:

English CASREACT 114:206976

OTHER SOURCE(S):

COCH2C (OH) (CO2Et) 2

The aldol condensation product I of 4-acetylpyridine and CO(COZEL)2 was converted to pyridazinecarboxylic acid hydrazide II (R = CONNH2)(III). Curtius reaction of III gave aminopyridazinone II (R = NN2). The condensation of (4-pyridyl)glyoxal with aminomalonamide H2NCH(CON12)2 yielded pyrazinecarboxamide IV (RI = CONN2) which was transformed to aminopyrazinone IV (RI = NN2) by the Hofmann reaction. Curtius reaction of 1,2,4-triazinone-5-carboxylic acid V (R2 = CO2H) gave aminotriazinone

(R2 = NH2). Demethylation of methoxypyrimidine VI (R3 = Me) gave pyrimidinol VI (R3 = H). 80843-46-5P RL. RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation and Curtius reaction of)

L4 ANSWER 15 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued NO 80843-46-5 CAPLUS COPYRIGHT 2007 ACS on STN (Continued NO 80843-46-5 CAPLUS COPYRIGHT 2007 ACS on STN (Continued NO 80843-46-5 CAPLUS COPYRIGHT 2007 ACS ON STN (Continued NO 80843-46-5 CAPLUS COPYRIGHT 2007 ACS ON STN (Continued NO 80843-46-5 CAPLUS CAPTURED NO 80843-46-5 CAPTURED N (Continued)

L4 ANSWER 16 OF 27
ACCESSION NUMBER:
DOCUMENT NUMBER:
112:91460 CAPLUS
112:91460 Pyridazine analogs of biologically active compounds. Part 5: Novel potential cardiotonics of the amminone type Haider, N.; Heinisch, G.; Offenberger, Sigrid Inst. Pharm. Chem., Univ. Vienna, Vienna, A-1090, Austria
DOCUMENT TYPE:
LANGUAGE:
DOCUMENT TYPE:
LANGUAGE:
CAPLUS COPYRIGHT 2007 ACS on STN
1990:91460 CAPLUS
Pyridazine Part 43. Pyridazine analogs of biologically active compounds. Part 5: Novel potential cardiotonics of the amminone type Haider, N.; Heinisch, G.; Offenberger, Sigrid Inst. Pharm Chem., Univ. Vienna, Vienna, A-1090, Austria
DOCUMENT TYPE:
LANGUAGE:
DOCUMENT TYPE:

DOCUMENT TYPE: LANGUAGE: GI

Preparation of a series of novel pyridazine derivs. structurally related

bipyridine cardiotonics, starting from 4-methylpyridazine or 4-acetylpyridazine, resp., is described. As observed with I, II and

an enhancement of in vitro cardiotonic activity was associated with the replacement of one or both pyridine subunit(s) in amrinone or milrinone

IT

a 1,2-diazine system.
125375-18-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and Hofmann degradation of)
125375-18-0 CAPUUS
[3,4"-Bipyridazine]-5-carboxamide, 1,6-dihydro-6-oxo- (9CI) (CA INDEX NAME)

L4 ANSWER 17 OF 27 CAPLUS COPYRIGHT 2007 ACS ON STN
ACCESSION NUMBER: 1989:497259 CAPLUS
DOCUMENT NUMBER: 111:97259
TITLE: PREPARATION OF PREPARATION OF PROPARATION: Sircar, Ila; Bristol, James A.
Warner-Lembert Co., USA
SOURCE: USX.CAM
LOCUMENT TYPE: PATENT ASSIGNEE(S): PATENT ASSIGNEE (S): PATENT ASSIGNEE (S): PATENT ASSIGNEE (S): USX.CAM
PATENT INFORMATION: PATENT INFORMATION: PATENT INFORMATION: SIRCARD ACCORDENCE OF THE PATENT INFORMATION ACCOR

DOCUMENT TYPE: LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

DATE PATENT NO. KIND DATE APPLICATION NO US 4734415 US 4353905 PRIORITY APPLN. INFO.: US 1983-477695 US 1981-302181 US 1981-302181 19880329 19821012 19830322 A2 19810917 US 1982-402488 A2 19820727

US 1982-407973 OTHER SOURCE(S): CASREACT 111:97259; MARPAT 111:97259

The title compds. [I; dotted line represents single or double bond; X -

S; R2 = H, lower alkyl; R3 = H, lower alkyl; when dotted line represents

single bond, R3 = dilower alkyl; R4 = H, lower alkyl; or when dotted line represents a double bond, R4 = H, lower alkylamino, cyano, OH, CH2OH, CONRSR6, etc.; R3R4 = atoms to complete a carbocycle of 3-6 atoms; R5, R6 = H, alkyl; Y = H, halo, lower alkyl, alkoxy etc.; A = R1Z; R1 = N-attached, (un)substituted, 5- or 6-membered heterocyclyl, optionally containing other hetero atoms; Z = bond, (CH2)nO in the 4-position; n =

and their pharmaceutically acceptable salts, useful as cardiotonics and

ANSWER 18 OF 27 CAPLUS COPYRIGHT 2007 ACS ON STN SSION NUMBER: 1989:114776 CAPLUS MENT NUMBER: 110:114776

ACCESSION NUMBER:

TITLE:

AUTHOR (S) :

1903:114776
3-Aminopyridazine derivatives with atypical
3-Aminopyridazine derivatives with atypical
antidepressant, serotonergic and dopaminergic
activities
Wermuth, Camille Georges; Schlewer, Gilbert;
Bourguignon, Jean Jacques; Maghioros, Georges;
Bouchet, Marie Jeanne; Moire, Claudine; Kan, Jean
Paul; Worms, Paul; Biziere, Kathleen
Dep. Pharmacochim. Mol., Univ. Louis Pasteur,
Strasbourg, 67084, Fr.
Journal of Medicinal Chemistry (1989), 32(3), 528-37
CODEN: JMCMAR; ISSN: 0022-2623
JOURNAL
English
CASREACT 110:114776

CORPORATE SOURCE:

SOURCE:

DOCUMENT TYPE: LANGUAGE: OTHER SOURCE(S): GI

.инснэснэй

Forty-seven substituted analogs of minaprine, e.g., I, were synthesized and tested for their potential antidepressant, serotonergic, and dopaminergic activities. The structure-activity relationships show that dopaminergic and serotonergic activities can be dissociated Serotonergic activity appears to be correlated mainly with the substituent in the 4-position of the pyridazine ring whereas the dopaminergic activity appears to be dependent on the presence, or in the formation, of a para-hydroxylated aryl ring in the 6-position of the pyridazine ring, 87769-56-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and chlorination of)
87769-56-0 CAPLUS
4-Pyridazinecarboxamide, 2,3-dihydro-3-oxo-6-phenyl- (9CI) (CA INDEX NAME)

ANSWER 17 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN 4-Pyridazinecarboxylic acid, -dibydro-6-[4-(1H-midazol-1-y1)phenyl]-3-oxo-, hydrazide (9CI) (CA INDEX NAME) (Continued)

A2 19820813

IT 97150-66-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in preparation of pyridazinone cardiotonic and
antihypertensive)
RN 97150-66-8 CAPILIS
CN 4-Pyridazinecarboxylic acid,
2,3-dihydro-6-[4-(14-li-midazol-1-yl]phenyl]-3oxo-, hydrazide (9CI) (CA INDEX NAME)

L4 ANSWER 19 OF 27 CAPLUS COPYRIGHT 2007 ACS ON STN ACCESSION NUMBER: 1987:598252 CAPLUS DOCUMENT NUMBER: 107:198252

TITLE:

Cardiotonic agents. 7. Inhibition of separated

forms pig

of cyclic nucleotide phosphodiesterase from guinea

cardiac muscle by 4,5-dihydro-6-{4-(1H-imidazol-1-yl)phenyl]-3(2H)-pyridazinones and related compounds. Structure-activity relationships and correlation with in vivo positive inotropic activity Sircar, Ila; Weishaar, Ronald E.; Kobylerz, Dianne; Moos, Walter H.; Bristol, James A. Dep. Chem., Warner-Lambert/Parke-Davis Pharm. Res., Ann Arbor, MI, 48105, USA
Journal of Medicinal Chemistry (1987), 30(11),

AUTHOR (S):

CORPORATE SOURCE:

SOURCE:

CODEN: JMCMAR: ISSN: 0022-2623 DOCUMENT TYPE:

Journal English CASREACT 107:198252 LANGUAGE: OTHER SOURCE(S):

$$\begin{bmatrix}
N \\
N \\
N
\end{bmatrix}$$

$$N C$$

$$N$$

Imidazolylphenylpyrazolinone I was prepared from benzonitrile II. The structure-activity relationships of a series of 4.5-dihydro-6-[4-(1H-imidazol-1-yl)phenyl]-3(2H)-pyridazinones, e.g., III (R = H, Me, CH2Ph, CH2CH2OR, CH2CH2OR, CH2CH2OR, CH3CH2CH2OR, CH3CH2OR, CH3CH2CH2OR, E.g., E.g.,

(IV), the 5-Me analog of imazodan III (R - R] = H) with an EDSO of 0.6 μM. The most potent inhibitor of PDE III was the 4,5,6,7-tetrahydrobenzimidazole analog of IV, with an EDSO of 0.15 μM. The structural features that impart both selectivity for inhibiting type III phosphodiesterase and potency of inhibition and correlations between in vitro PDE inhibitory potency, in vivo pos. inotropic potency, and physicochem. properties are discussed. 97150-66-8 97150-67-9

ANSWER 19 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN RL: RCT (Reactant); RACT (Reactant or reagent) (phosphodicaterase inhibitory activity of) 97150-66-8 CAPLUS 4-Pyridazinecarboxylic acid, dihydro-6.4-(1H-imidazol-1-yl)phenyl}-3-oxo-, hydrazide (9CI) (CA INDEX NAME) (Continued)

RN 97150-67-9 CAPLUS
CN 4-Pyridazinecarboxamide,
2,3-dihydro-6-[4-(1H-imidazol-1-yl)phenyl]-3-oxo(9CI) (CA INDEX NAME)

ANSWER 20 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

L4 ANSWER 20 0F 27
ACCESSION NUMBER:
DOCUMENT NUMBER:
1987:213880 CAPLUS
106:213860
The reaction of pyridazinones with nucleophiles. An unusual reaction with cyanide
Badger, Edward W.; Moos, Walter H.
Dep. Chem., Warner-Lembert/Parke-Davis Pharm. Res.,
Ann Arbor, MI, 48105, USA
Journal of Heterocyclic Chemistry (1986), 23(5),
1515-17
CODEM: JHTCAD; ISSN: 0022-152X
JOURNAL TYPE:
LANGUAGE:
CHER SOURCE(S):
G1

AB Studies on the synthesis of pyridazinone analogs of pyridone cardiotonics are reported. The synthetic scheme involves the reaction of pyridazinones and chloropyridazinones I (R = H, Rl = H, Cl) with nucleophiles.

Addition occurred twice with cyanide as the nucleophile, thus providing a novel dicyanopyridazinone I (R = Rl = cyano).

1 97150-66-8

RL: RCT (Reactant); RACT (Reactant or reagent)
(Curtis rearrangement of)
RN 97150-66-8 CAPLUS
CN 4-Pyridazinearboxylic acid,
2,3-dihydro-6-[4-(1H-imidazol-1-yl)phenyl]-3-oxo-, hydrazide (9CI) (CA INDEX NAME)

103:160462
Cardiotonic agents. 2. Synthesis and structure-activity relationships of 4.5-dihydro-6-(4-(H-imidazol-1-yl)phenyl]-3(2H)-pyridazinones: a new class of positive inotropic

AUTHOR (S):

pyridazinones: a new class of positive inotropic agents Sircar, Ila; Duell, Bradley L.; Bobowski, George; Bristol, James A.; Evans, Dale B. Dep. Chem., Warner-Lembert/Parke-Davis Pharm. Res., Ann Arbor, MI, 48105, USA Journal of Medicinal Chemistry (1985), 28(10), CORPORATE SOURCE:

1405-13 CODEN: JMCMAR; ISSN: 0022-2623

Journal

DOCUMENT TYPE: LANGUAGE: OTHER SOURCE(S): English CASREACT 103:160462

AB A series of
4,5-dihydro-6-[4-{1H-imidazol-1-yl]phenyl}-3(2H)-pyridazinones
and related compds. were synthesized and evaluated for pos. inotropic
activity. Most members of this series produced dose-related increases in
myocardial contractility that were associated with relative minor
increases.

rases
in heart rate and decreases in systemic arterial blood pressure.
Introduction of a Me substituent at the 5-position of pyridazinone I (R =
H) (II) produced the most potent compound in this series, I (R = Me)

Compound II is more potent than amrinone whereas compound III is more

Compound II is more potent than amrinone whereas compound III is more potent than mirinone. The inotropic effects of II and III are not mediated via stimulation of β-adrenergic receptors. Selective inhibition of cardiac phosphodisesterase fraction III represents the principal component of the pos. inotropic action of II and III.

IT 97150-67-9P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (preparation and inotropic activity of)

RN 97150-67-9 CAPLUS
CN 4-Pyridazinecarboxamide, 2,1-dihydro-6-[4-(IH-imidazol-1-yl)phenyl]-3-oxo-(SCI) (CA INDEX NAME)

ANSWER 21 OF 27 CAPLUS COPYRIGHT 2007 ACS ON STN (Continued)

ANSWER 22 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN US 1984-571696 (Continued) A3 19840118

> EP 1984-400157 A 19840125

OTHER SOURCE(S): CASREACT 102:62255

3-[2-(4-Morpholinyl)ethylamino]-6-phenyl-4-pyridazinecarbonitrile dihydrochloride [1] was prepared, and it showed antidepressant activity. The cyclocondensation of PhCOTACH(COZEL)2 with N2H4 gave pyridazinone derivative II, which was brominated and dehydrobrominated to give ester AB III (R

(R = OEL); the latter was converted to amide III (R = NH2). The amide was treated with POCl3 to give 3-chloro-6-phenyl-4-pyrazinecarbonitrile, and the product was treated with 4-(2-aminoethyl)morpholine and HCl to give

I. IT 87769-56-0P 87769-56-0P
RE: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation and dehydration of, by phosphoryl chloride) 87769-56-0 CAPLUS 4-Pyridazinecarboxamide, 2,3-dihydro-3-oxo-6-phenyl- (9CI) (CA INDEX NAME)

L4 ANSWER 22 OF 27 CAPLUS COPYRIGHT 2007 ACS ON STN ACCESSION NUMBER: 1985:62255 CAPLUS
DOCUMENT NUMBER: 102:62255

ACCESSION NUMBER: DOCUMENT NUMBER: TITLE: and Pyridazine derivative having a psychotropic action

medicines containing them
Kan, Jean Paul; Biziere, Kathleen; Wermuth, Camille
Georges
Sanoti, Pr.
Pr. Demande, 12 pp.
CODEN: FRXXBL
Patent
2 INVENTOR(S):

PATENT ASSIGNEE (S) : SOURCE:

DOCUMENT TYPE:

PAMILY ACC. NUM. COUNT:

PATE	ENT NO.			KINE		DATE		PPLICATION NO.		DATE
FR 2	2540115			Al		19840803		1983-1366		1983012
FR 2	2540115			Bl		19850607				
US 4	1565814			A		19860121		1984-571696		1984011
CA 1	1218655			A1		19870303		1984-445482		1984011
DK 8	3400259			A		19840729	D	( 1984-259		1984012
	159969			В		19910107				
DK 1	159969			С		19910527				
ZA 8	400500			А		19840829		1984-500		1984012
IL 7	70755			А		19870331		1984-70755		1984012
AU 8	3423728			А		19840802	Αl	J 1984-23728		1984012
AU S	566352			B2		19871015				
	529108			A1		19841001		1984-529108		1984012
	116494			A1		19840822	E	1984-400157		1984012
	116494			B1		19880127				
	R: AT,	BE,	CH,	DE,	FR,			U, NL, SE		
	32220			T		19880215		1984-400157		1984012
	3400349			Α		19840729	F	1984-349		1984012
	77453			В		19881130				
	77453			С		19890310				
	1400329			A		19840730		1984-329		1984012
	33148			A2		19841029	H	J 1984-378		1984012
	192975			В		19870828				
	15542			A5		19841114		1984-259679		1984012
	1274623			A3		19861130		J 1984-3697653		1984012
	143994			B1		19880430		1984-245932		1984012
	74405			B2		19910411		1984-614		1984012
	9141565					19840814		1984-14185		1984012
	631280			A		19861223		1985-735580		1985052
	906215			A		19891208	Di	1989-6215		1989120
	162218			В		19910930				
	162218			C		19920302				
	3906216			A		19891208	Di	1989-6216		1989120
	162219			В		19910930				
	162219			c		19920302				
LIORITY	APPLN.	INPO.					FF	1983-1366	A	1983012

L4 ANSWER 23 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1985:24642 CAPLUS
DOCUMENT NUMBER: 102:24642
TITLE: Pyridazine derivatives with psychotropic activity and

Pyridazine derivatives with psychotropic activity ar intermediates
Biziere, Kathleen; Kan, Jean Paul; Wermuth, Camille Georges
Sanofi, Fr.
Eur. Pat. Appl., 29 pp.
CODEN: EPXXDW
Patent INVENTOR (S):

PATENT ASSIGNEE(S): SOURCE:

DOCUMENT TYPE: LANGUAGE: French

PAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PATENT NO.	KIND I	DATE	APPLICATION NO.	DATE	
EP 116494	A1 :	19840822	EP 1984-400157	19840125	
EP 116494	B1 :	19880127			
R: AT, BE, CH,	DE, FR,	GB, IT, L	I. LU. NL. SE		
PR 2540115	A1 :	19840803	FR 1983-1366	19830128	
PR 2540115	B1 :	19850607			
PR 2555178	A1 :	19850524	FR 1983-18433	19831118	
FR 2555178	B1 :	19860418			
AT 32220	T :	19880215	AT 1984-400157	19840125	,
PRIORITY APPLN. INFO.:			PR 1983-1366	A 19830128	
			FR 1983-18433	A 19831118	
			EP 1984-400157 J	A 19840125	

OTHER SOURCE(S): CASREACT 102:24642; MARPAT 102:24642

3-Amino-4-pyridazinecarbonitriles I [one of R and R1 is H or alkyl, and the other is H, alkyl, cycloalkyl, Ph or substituted Ph, naphthyl, thienyl, 3-indolyl; Z = CH2CH2, CH2CH4C, (CH2)3; R2 = H and R3 = H, CH2CH4O, or NR2R3 = 4-morpholinyl, 3-cox-4-morpholinyl), which were prepared, showed psychotropic activity. 3-Chloro-6-phenyl-4-pyridazinecarbonitrile was heated with 4-(2-aminochtyl)morpholine in BuOH to give I (R = Ph, R1 = H, Z = CH2CH2, NR2R3 = 4-morpholinyl). 87769-56-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, with phosphoryl chloride)
87769-56-0 CAPLUS
4-Pyridazinecarboxamide, 2,3-dihydro-3-oxo-6-phenyl- (9CI) (CA INDEX NAME)

ANSWER 23 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

94011-51-5 94011-52-6 94011-53-7
94011-54-8 94011-55-9 94011-55-0
94011-57-1 94011-68-2 94011-59-3
94011-60-6 94011-61-7 94011-62-8
94011-61-8
RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with phosphoryl chloride)
94011-51-5 CAPUS
4-Pyridazinecarboxamide, 6-(4-chlorophenyl)-2,3-dihydro-3-oxo- (9CI) (CA
INDEX NAME)

94011-52-6 CAPLUS 4-Pyridazinecarboxamide, 6-cyclohexyl-2,3-dihydro-3-oxo- (9CI) (CA INDEX NAME)

94011-53-7 CAPLUS 4-Pyridazinecarboxamide, 6-(2,4-dichlorophenyl)-2,3-dihydro-3-oxo- (9CI) (CA INDEX NAME)

94011-54-8 CAPLUS 4-Pyridazinecarboxamide, 6-(2-chlorophenyl)-2,3-dihydro-3-oxo- (9CI) (CA INDEX NAME)

(Continued)

L4 ANSWER 23 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN

94011-55-9 CAPLUS 4-Pyridazinecarboxamide, 2,3-dihydro-3-oxo-6-(2-thienyl)- (9CI) (CA NAME)

94011-56-0 CAPLUS 4-Pyridazinecarboxamide, 2,3-dihydro-6-(4-methoxyphenyl)-3-oxo- (9CI) INDEX NAME)

ANSWER 23 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

94011-57-1 CAPLUS 4-Pyridazinecarboxamide, 6-(3,4-dichlorophenyl)-2,3-dihydro-3-oxo- (9CI) (CA INDEX NAME)

94011-58-2 CAPLUS 4-Pyridazinecarboxamide, 2,3-dihydro-6-(2-naphthalenyl)-3-oxo- (9CI) (CA INDEX NAME)

94011-59-3 CAPLUS 4-Pyridazinecarboxamide, 2,3-dihydro-6-(4-nitrophenyl)-3-oxo- (9CI) (CA INDEX NAME)

Habte

ANSWER 23 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

94011-60-6 CAPLUS 4-Pyridezinecarboxamide, 2,3-dihydro-6-(4-methylphenyl)-3-oxo- [9CI) (CA INDEX NAME) (CA

94011-61-7 CAPLUS
4-Pyridazinecerboxamide, 2,3-dihydro-3-oxo-6-[4-(trifluoromethyl)phenyl](9C1) (CA INDEX NAME)

94011-62-8 CAPLUS 4-Pyridazinecarboxamide, 2,3-dihydro-3-oxo-6-{3-(trifluoromethyl)phenyl]-(9C1) (CA INDEX NAME)

94011-63-9 CAPLUS 4-Pyridazinecarboxamide, 6-{4-cyanophenyl}-2,3-dihydro-3-oxo- (9CI) (CA INDEX NAME)

# 10/715,556

Page 25

ANSWER 23 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

L4 ANSWER 24 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN ACCESSION NUMBER: 1984:630453 CAPLUS

DOCUMENT NUMBER: TITLE:

1984:630453 (CAPLUS 101:230453 Novel amination of 6-aryl-3(2H)-pyridazinones with hydrazine Singh, Baldev Sterling-Winthrop Res. Inst., Rensselser, NY, 12144, USA AUTHOR(S): CORPORATE SOURCE:

SOURCE: Heterocycles (1984), 22(8), 1801-4 CODEN: HTCYAM; ISSN: 0385-5414

DOCUMENT TYPE: Journal

English CASREACT 101:230453 OTHER SOURCE(S):

Aminopyridazinones I (R = H, Me; R1 = 4-pyridyl, 4-H2NC6H4, 4-H0C6H4)

(9CI) (CA INDEX NAME)

L4 ANSWER 25 OF 27 ACCESSION NUMBER: DOCUMENT NUMBER: TITLE:

CAPLUS COPYRIGHT 2007 ACS on STN
1984:174757 CAPLUS
100:174757
Synthesis of 4-amino-6-phenyl-3(2H)-pyridazinones: a
general procedure
Sircar, Ila
Dep. Chem., Warner-Lambert/Parke-Davis Pharm. Res.,
Ann Arbor, MI, 48105, USA
Journal of Heterocyclic Chemistry (1983), 20(6),
1473-6
CODEN: JHTCAD; ISSN: 0022-152X
Journal
English

DOCUMENT TYPE: LANGUAGE: OTHER SOURCE(S): GI

English CASREACT 100:174757

$$Ph \longrightarrow R^1$$

3,4-Dichloro-6-phenylpyridazine (I) was prepared by treating 2-benzyl-4,5-dihydro-6-phenyl-3(2H)-pyridazinone with PC15-PCCl3. I was aminated to give II (R = NMe2, NH(CR2)3NMe2, NHBU, 4-methylpiperizino, morpholino, thiomorpholino; R1 = Cl] which were hydrolyzed with acid to

(R1 = OH). 87769-56-0P RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and Hofmann degradation of) 87769-56-0 CAPLUS 4-Pyridazinecarboxamide, 2,3-dihydro-3-oxo-6-phenyl- (9CI) (CA INDEX NAME)

L4 ANSWER 26 OF 27
ACCESSION NUMBER:
DCUMENT NUMBER:
1983:594988 CAPLUS
99:194988
SUBstituted 6-phenyl-3(2H)-pyridazinones useful as cardiotonic agents
Sircer. Ila
Warner-Lambert Co. , USA
SOURCE:
DOCUMENT TYPE:

CAPLUS COPPRIGHT 2007 ACS on STN
1983:594988 CAPLUS
9:194988
CAPLUS
Substituted 6-phenyl-3(2H)-pyridazinones useful as cardiotonic agents
Sircer. Ila
Warner-Lambert Co. , USA
CODEN: USXXAM

DOCUMENT TYPE:

Patent English 2

LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

KIND	DATE	APPLICATION NO.	DATE
A	19830913	US 1981-263643	19810514
A	19830809	US 1981-325719	19811130
		US 1981-263643 A2	19810514
	A	A 19830913	A 19830913 US 1981-263643 A 19830809 US 1981-325719

OTHER SOURCE(S):

CASREACT 99:194988; MARPAT 99:194988

The cardiotonic title compds. I [R = H, alkyl, PhCH2, Ph; R1 = H, R2 = CF3, PhCH2, cyano, CO2H, CONRS2 (R5 = H, alkyl), CH2NR52, CH2OH, NR52; R2 = H, R1 = CF3, cyano, CONR52, CH2NR52, NR52; R3, R4 = H, halo, alkyl, alkoxy, H0, PhO, sulfonamido; dotted line represents single or double bond] were prepared Thus, 89 g PhCOCH2CH2CO2H was cyclized with

alkoxy, HO, PhO, sulfonamido; dotted line represents single or double bond] were prepared Thus, 89 g PhCOCH2CH2CO2H was cyclized with HR2.H20
in EtOH to give 75.6 g 6-phenyl-4.5-dihydro-3(2H)-pyridazinone, which was dehydrogenated by treatment with Br to give 60 g 6-phenyl-3(2H)-pyridazinone (II). At 0.1 mg/kg II increased cardiac contractility by 9.2% in dogs.
87769-56-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation and dehydration of) 87769-56-0 CAPLUS
4-Pyridazinecarboxamide, 2,3-dihydro-3-oxo-6-phenyl- (9CI) (CA INDEX NAME)

ANSWER 26 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

L4 ANSMER 27 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1982:85571 CAPLUS
DOCUMENT NUMBER: 96:85571
TITLE: 4-Substituted 6-(pyridinyl)-3(2H)-pyridazinones, intermediates in their production and their use as cardiotonic agents
INVENTOR(S): Lesher, George Yohe; Dickinson, William Borden; Baldev Sterling Drug Inc., USA Fr. Demande, 36 pp. CODEN: FRXXBL PATENT ASSIGNEE(S): SOURCE: DOCUMENT TYPE: LANGUAGE: PAMILY ACC. NUM. COUNT: PATENT INFORMATION: Patent French PATENT NO. APPLICATION NO. DATE KIND DATE PATENT NO.

PR 2481284
US 4304776
US 4305943
US 4338446
US 4348221
GB 2075500
ZA 8102652
EB 888566
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DK 8101866
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CA 1166254
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LA 8102077
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DF 3116861 FR 1981-8251 US 1980-144567 US 1980-144563 US 1981-238483 US 1981-238566 AU 1981-69724 GB 1981-12638 19810424 19800428 19800428 19810226 19810302 19811030 19811215 19820706 19820824 19811105 19811105 19811118 19840606 19820526 19811027 19811029 19811029 19811029 19830101 19840424 198411116 19811116 19811123 19810422 19810423 ZA 1981-2652
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OTHER SOURCE(S): CASREACT 96:85571; MARPAT 96:85571

ANSWER 27 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN

$$\begin{array}{c|c} & & & \\ & & & \\ N-N & I & \\ & & & \\ N-N & 0 & \\ N-N & 0 & \\ & & & \\ N-N & 111 & \\ \end{array}$$

Cardiotonic (no data), pyridylpyridazinones I (R = H, alkyl,

cyclized

with N2H4 and dehydrated to give III (R1 = CO2EL). The ester was
converted to the hydrazide and then the azide which was subjected to
Curtius rearrangement, hydrolysis, and decarboxylation to give III (R1 =
NH2).

IT 80843-46-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and reaction of, with nitrite)
RN 80843-46-5 CAPLUS
CN 4-Pyridazinecarboxylic acid, 2,3-dihydro-3-oxo-6-(4-pyridinyl)-,
hydrazide
(9CI) (CA INDEX NAME)